

# **FUNAI** **SERVICE MANUAL**

**Subject: New type of deck mechanism**

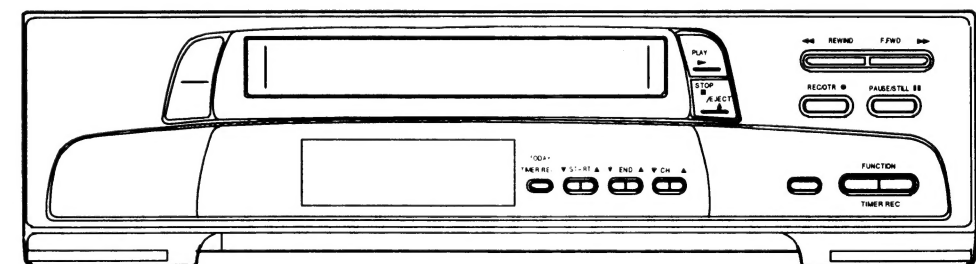
1. This service manual contains new deck mechanism (Deck no. N3103XN). Before attempt to servicing, please remove the top case and confirm the kind of deck mechanism. Deck mechanism part number is shown on the upper part of it (Right corner). This deck number is showing as below :

Deck no. N3103XN -----> **3103**

If the deck number other than " 3101 ", refer to original service manual for service.

2. This service manual is applied the models V-8008CM(N) and V-8008SA(N) with new serial number label which indicates suffix " A " at last digit of the serial number.  
If the deck number other than " A ", refer to original service manual for service.

## **VIDEO CASSETTE RECORDER** **V-8008CM(N) / V-8008SA(N)**



# MAIN SECTION

## VIDEO CASSETTE RECORDER

### V-8008CM(N) / V-8008SA(N)

**Sec. 1: Main Section**

- Specifications
- Preparation for Servicing
- Adjustment Procedures
- Schematic Diagrams
- CBA' s

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SPECIFICATIONS

| Description                        | Unit   | Minimum | Nominal | Maximum | Condition |
|------------------------------------|--------|---------|---------|---------|-----------|
| 1. Video                           |        |         |         |         | F6-A      |
| 1-1 Video Output (PB)              | Vp-p   | 0.8     | 1.0     | 1.2     | SP Mode   |
| 1-2 Video Output (R/P)             | Vp-p   | 0.8     | 1.0     | 1.2     | SP Mode   |
| 1-3 Video S/N Y (R/P)              | dB     | 40      | 44      |         | SP Mode   |
| 1-4 Video Color S/N AM (R/P)       | dB     | 37      | 41      |         | SP Mode   |
| 1-5 Video Color S/N PM (R/P)       | dB     | 30      | 36      |         | SP Mode   |
| 1-6 Resolution (PB)                | Line   | 230     | 245     |         | SP Mode   |
| 2. Servo                           |        |         |         |         | F6-N      |
| 2-1 Jitter Low (PB)                | μsec   | 0.12    | 0.07    |         | SP Mode   |
| 2-2 Wow & Flutter (R/P)            | %      | 0.5     | 0.3     |         | SP Mode   |
| 3. Audio                           |        |         |         |         | F6-A      |
| 3-1 Output (PB)                    | dBV    | -11     | -8      | -5      | SP Mode   |
| 3-2 Output (R/P)                   | dBV    | -11     | -8      | -3.5    | SP Mode   |
| 3-3 S/N (R/P)                      | dB     | 36      | 41      |         | SP Mode   |
| 3-4 Distortion (R/P) Input ; -10dB | %      | 4.0     | 1.0     |         | SP Mode   |
| 3-5 Freq. response (R/P) at 100Hz  | dB     | -7      | -4      |         | SP Mode   |
| (-20dB ref. 1kHz) at 8kHz          | dB     | -10     | -4      |         | SP Mode   |
| 4. Tuner                           |        | B/G     | D/K     |         |           |
| 4-1 Channel VL                     | CH     | E2-E4   | R1-R5   |         | E-E Mode  |
| VH                                 | CH     | E5-E12  | R6-R12  |         | E-E Mode  |
| UHF                                | CH     | E21-E69 | E21-E69 |         | E-E Mode  |
| 4-2 Video Output                   | Vp-p   | 0.8     | 1.0     | 1.2     | E-E Mode  |
| 4-3 Video S/N (E 45CH)             | dB     | 39      | 42      |         | E-E Mode  |
| 4-4 Audio Output                   | mV/rms | 250     | 400     | 550     | E-E Mode  |
| 4-5 Audio S/N                      | dB     | 40      | 46      |         | E-E Mode  |

**Note:** Nominal specs represent the design specs. All units should be able to approximate these – some will exceed and some may drop slightly below these specs. Limit specs represent the absolute worst condition that still might be considered acceptable; In no case should a unit fail to meet limit specs.

IMPORTANT SAFETY PRECAUTIONS

Product Safety Notice

Some electrical and mechanical parts have special safety-related characteristics which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified by a ⚠ on schematics and in parts lists. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part

might create shock, fire, and/or other hazards. The Product's Safety is under review continuously and new instructions are issued whenever appropriate. Prior to shipment from the factory, our products are carefully inspected to confirm with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

Precautions during Servicing

- A. Parts identified by the ⚠ symbol are critical for safety.  
Replace only with part number specified.
- B. In addition to safety, other parts and assemblies are specified for conformance with regulations applying to spurious radiation. These must also be replaced only with specified replacements.  
Examples: RF converters, RF cables, noise blocking capacitors, and noise blocking filters, etc.
- C. Use specified internal wiring. Note especially:
  - 1) Wires covered with PVC tubing
  - 2) Double insulated wires
  - 3) High voltage leads
- D. Use specified insulating materials for hazardous live parts. Note especially:
  - 1) Insulation tape
  - 2) PVC tubing
  - 3) Spacers
  - 4) Insulators for transistors
- E. When replacing AC primary side components (transformers, power cord, etc.), wrap ends of wires securely about the terminals before soldering.
- F. Observe that the wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
- G. Check that replaced wires do not contact sharp edges or pointed parts.

- H. When a power cord has been replaced, check that 10-15 kg of force in any direction will not loosen it.
- I. Also check areas surrounding repaired locations.
- J. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.
- K. Crimp type wire connector  
The power transformer uses crimp type connectors which connect the power cord and the primary side of the transformer. When replacing the transformer, follow these steps carefully and precisely to prevent shock hazards.  
Replacement procedure
  - 1) Remove the old connector by cutting the wires at a point close to the connector.**Important:** Do not re-use a connector. (Discard it.)
  - 2) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.
  - 3) Align the lengths of the wires to be connected. Insert the wires fully into the connector.
  - 4) Use a crimping tool to crimp the metal sleeve at its center. Be sure to crimp fully to the complete closure of the tool.
- L. When connecting or disconnecting the internal connectors, first, disconnect the AC plug from the AC outlet.

Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts, and wires have been returned to their original positions. Afterwards, do the following tests and confirm the specified values to verify compliance with safety standards.

1. Clearance Distance

When replacing primary circuit components, confirm specified clearance distance (d) and (d') between soldered terminals, and between terminals and surrounding metallic parts. (See Fig. 1)

Table 1 : Ratings for selected area

| AC Line Voltage | Region              | Clearance Distance (d) (d')                     |
|-----------------|---------------------|-------------------------------------------------|
| 220 to 240 V    | Europe or Australia | $\geq 4\text{ mm(d)}$<br>$\geq 6\text{ mm(d')}$ |

**Note:** This table is unofficial and for reference only. Be sure to confirm the precise values.

2. Leakage Current Test

Confirm the specified (or lower) leakage current between B (earth ground, power cord plug prongs) and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.) is lower than or equal to the specified value in the table below.

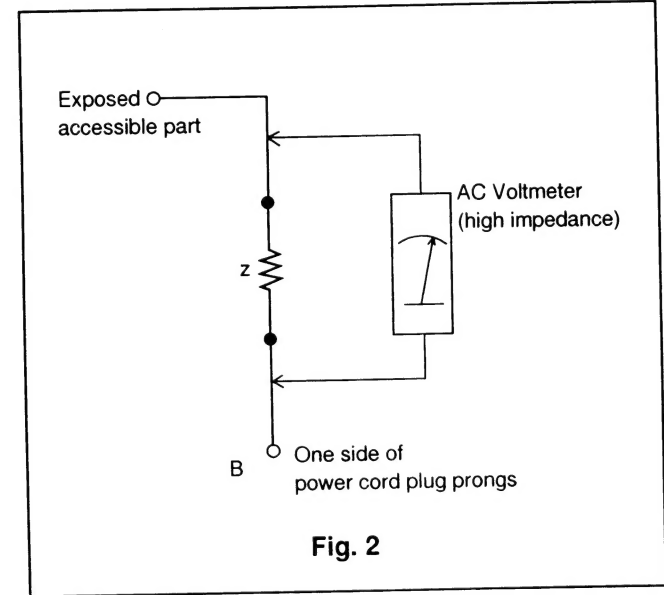
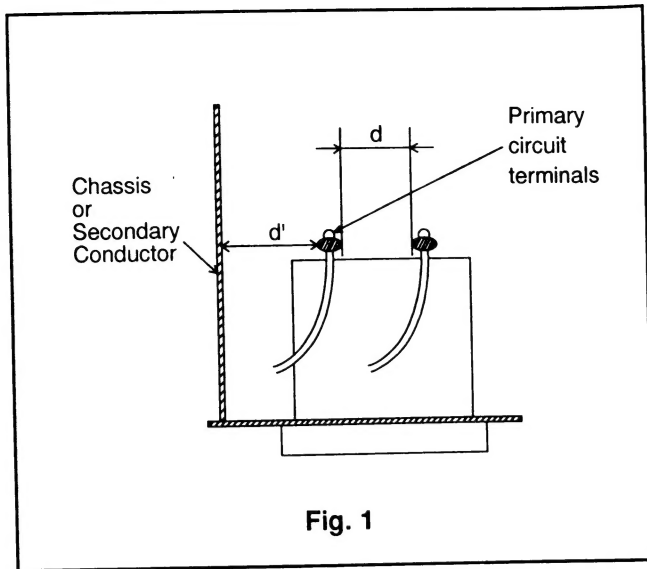
Measuring Method (Power ON) :

Insert load Z between B (earth ground, power cord plug prongs) and exposed accessible parts. Use an AC voltmeter to measure across the terminals of load Z. See Fig. 2 and the following table.

Table 2 : Leakage current ratings for selected areas

| AC Line Voltage | Region              | Load Z                          | Leakage Current (i)                                     | One side of power cord plug prongs (B) to: |
|-----------------|---------------------|---------------------------------|---------------------------------------------------------|--------------------------------------------|
| 220 to 240 V    | Europe or Australia | 2kΩ RES. Connected in parallel  | $i \leq 0.7\text{mA AC Peak}$<br>$i \leq 2\text{mA DC}$ | RF or Antenna terminals                    |
|                 |                     | 50kΩ RES. Connected in parallel | $i \leq 0.7\text{mA AC Peak}$<br>$i \leq 2\text{mA DC}$ | A/V Input, Output                          |

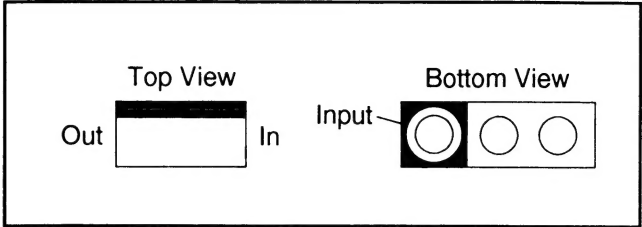
**Note:** This table is unofficial and for reference only. Be sure to confirm the precise values.



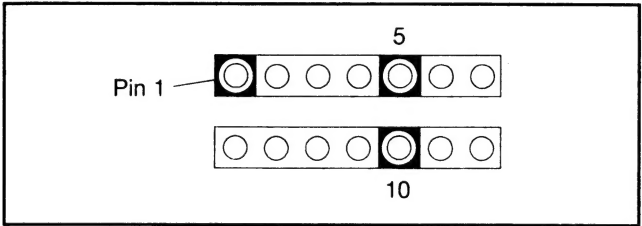
STANDARD NOTES FOR SERVICING

Circuit Board Indications

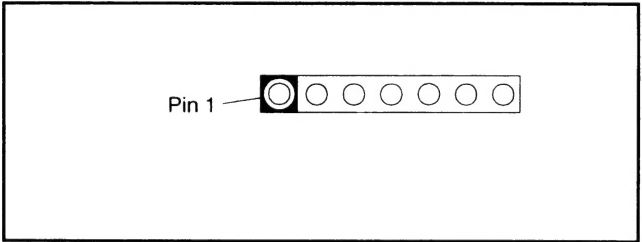
a. The output pin of the 3 pin Regulator ICs is indicated as shown.



b. For other ICs, pin 1 and every fifth pin are indicated as shown.

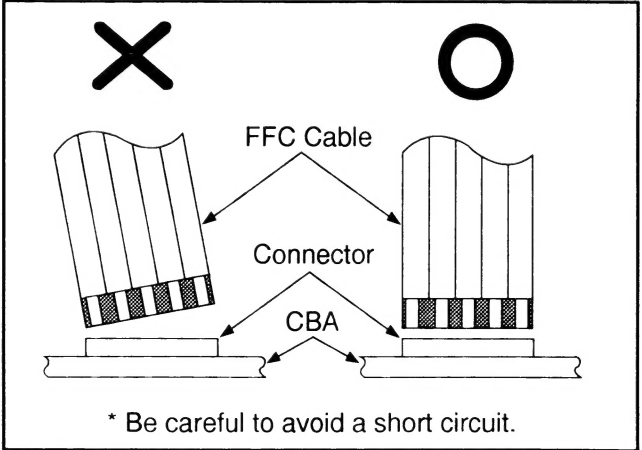


c. The 1st pin of every male connector is indicated as shown.



Instructions for Connectors

- 1. When you connect or disconnect the FFC (Flexible Foil Connector) cable, be sure to first disconnect the AC cord.
- 2. FFC (Flexible Foil Connector) cable should be inserted parallel into the connector, not at an angle.

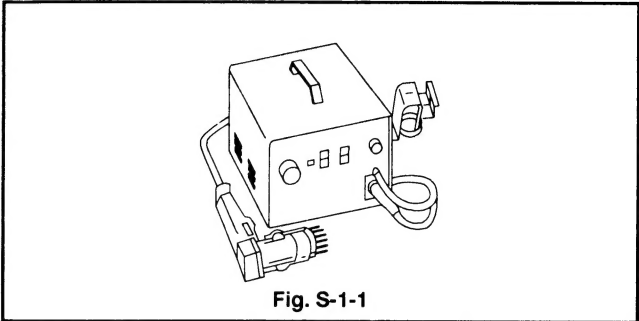


How to Remove / Install Flat Pack IC

1. Removal

With Hot-Air Flat Pack-IC Desoldering Machine:

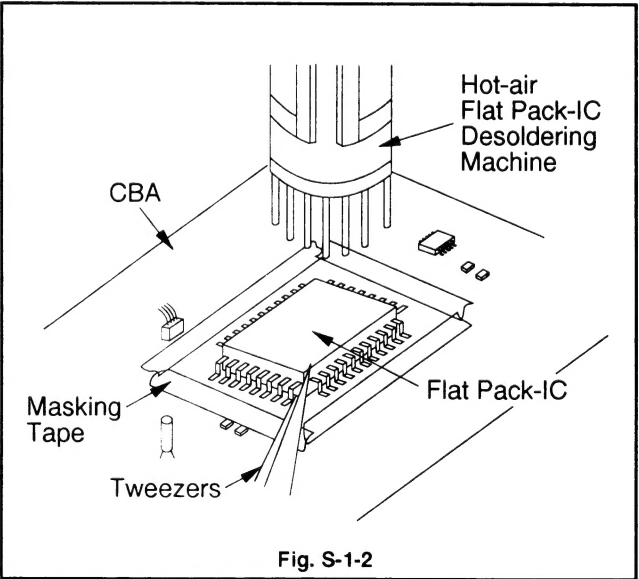
- (1) Prepare the hot-air flat pack-IC desoldering machine, then apply hot air to the Flat Pack-IC (about 5 to 6 seconds). (Fig. S-1-1)



- (2) Remove the flat pack-IC with tweezers while applying the hot air.

Caution:

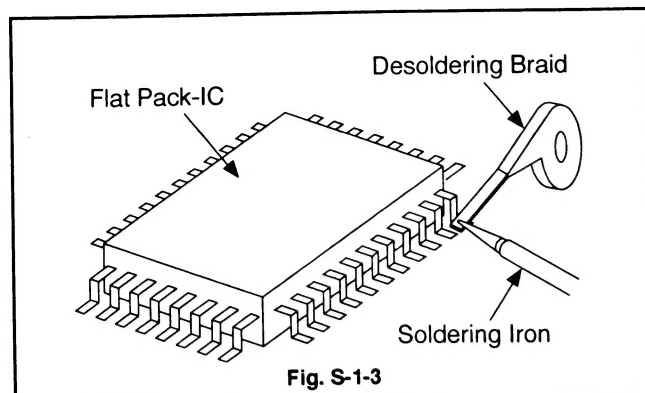
- 1. Do not supply hot air to the chip parts around the flat pack-IC for over 6 seconds because damage to the chip parts may occur. Put masking tape around the flat pack-IC to protect other parts from damage. (Fig. S-1-2)
- 2. The flat pack-IC on the CBA is affixed with glue, so be careful not to break or damage the foil of each pin or the solder-lands under the IC when removing



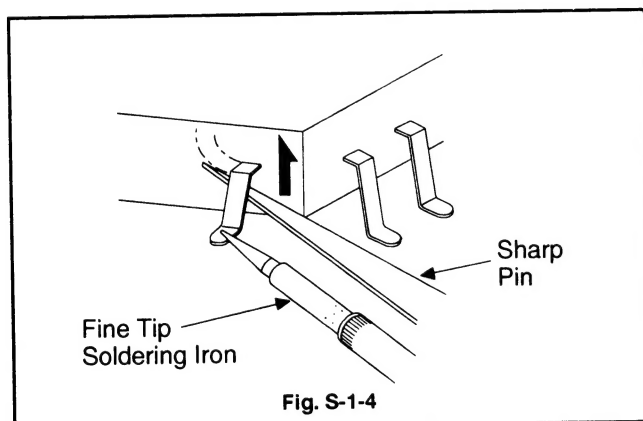
With Soldering Iron:

- (1) Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)





- (2) Lift each lead of the flat pack-IC upward one by one, using a sharp pin or wire to which solder will not adhere (iron wire). When heating the pins, use a fine tip soldering iron or a hot air desoldering machine. (Fig. S-1-4)

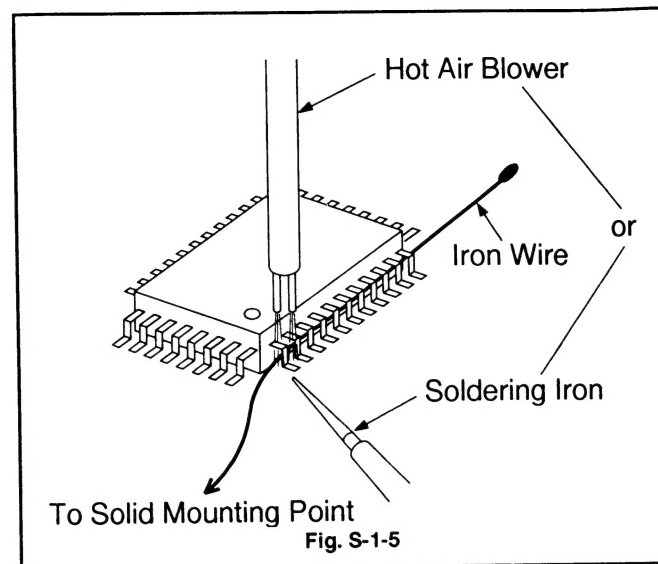


#### With Iron Wire:

- (1) Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)
- (2) Affix the wire to a workbench or solid mounting point, as shown in Fig. S-1-5.
- (3) While heating the pins using a fine tip soldering iron or hot air blower, pull up the wire as the solder melts so as to lift the IC leads from the CBA contact pads as shown in Fig. S-1-5.

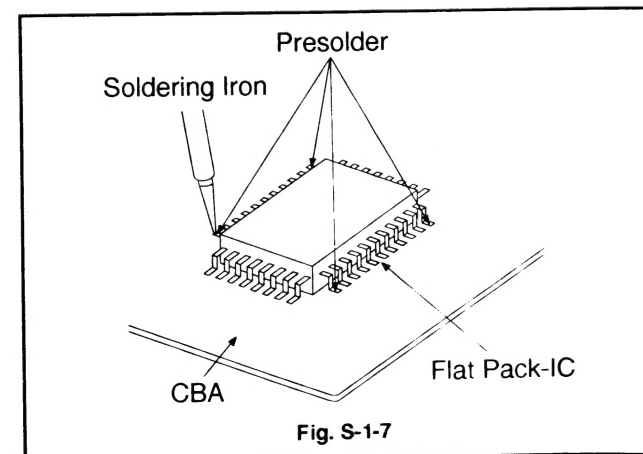
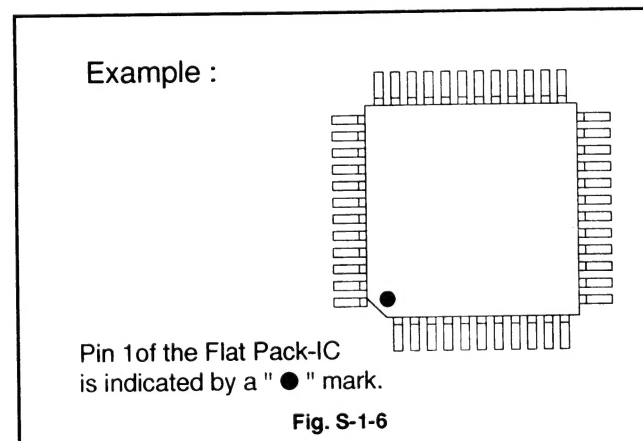
#### Note:

When using a soldering iron, care must be taken to ensure that the flat pack-IC is not being held by glue. When the flat pack-IC is removed from the CBA, handle it gently because it may be damaged if force is applied.



## 2. Installation

- (1) Using desoldering braid, remove the solder from the foil of each pin of the flat pack-IC on the CBA so you can install a replacement flat pack-IC more easily.
- (2) The "•" mark on the flat pack-IC indicates pin 1. (See Fig. S-1-6.) Be sure this mark matches the 1 on the PCB when positioning for installation. Then pre-solder the four corners of the flat pack-IC. (See Fig. S-1-7.)
- (3) Solder all pins of the flat pack-IC. Be sure that none of the pins have solder bridges.



## Instructions for Handling Semiconductors

Electrostatic breakdown of the semiconductors may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

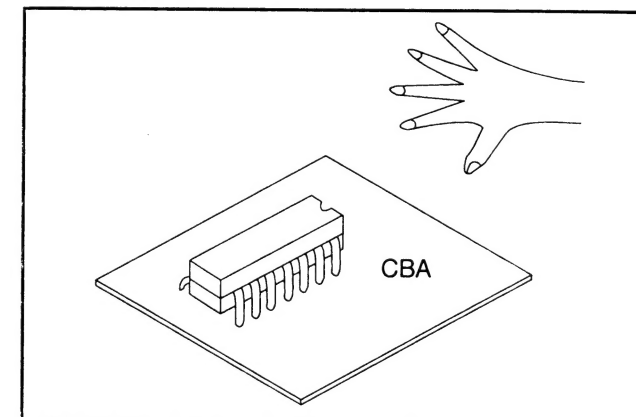
### 1. Ground for Human Body

Be sure to wear a grounding band (1M ohm) that is properly grounded to remove any static electricity that may be charged on the body.

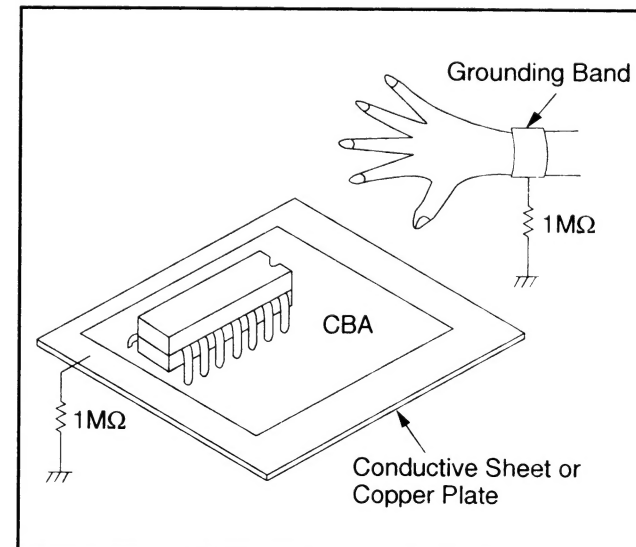
### 2. Ground for Workbench

Be sure to place a conductive sheet or copper plate with proper grounding (1M ohm) on the workbench or other surface, where the semiconductors are to be placed. Because the static electricity charge on clothing will not escape through the body grounding band, be careful to avoid contacting semiconductors with your clothing.

#### Incorrect



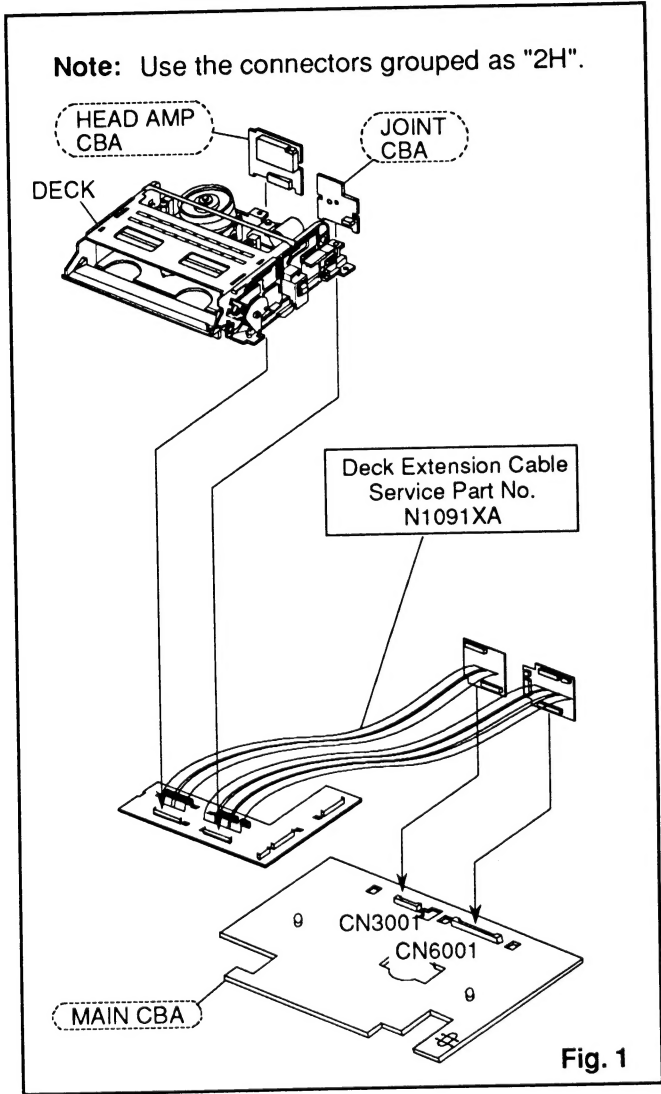
#### Correct



PREPARATION FOR SERVICING

How to use Deck Extension Cable

- (1) Remove the Deck Mechanism Assembly. If needed, remove the Main CBA from the chassis.
- (2) Use the Deck Extension Cable to connect the Deck Mechanism Assembly to the Main CBA. (Deck Extension Cable: N1091XA)



How to Enter the Service Mode

**Note:** When the unit is set in the service mode, the whole display will keep blinking.

About Optical Sensors

Caution:

An optical sensor system is used for the Tape Start and End Sensors on this equipment. Carefully read and follow the instructions below. Otherwise the unit may operate unexpectedly.

What to do for preparation

After plugging in the unit, connect J2 (SENSOR INHIBITION) to J1 (GROUND). This will stop the function of Tape Start and End Sensors. (If these TPs are connected before plugging in the unit, the function of the sensors will stay valid.)

Bring a tape to the tape inlet of the Deck Mechanism Assembly and press the PLAY button. The tape will be loaded into the Deck Mechanism Assembly.

**Note:** Because the Tape End Sensors are inactive, do not run a tape all the way to the start or the end of the tape to avoid tape damage.

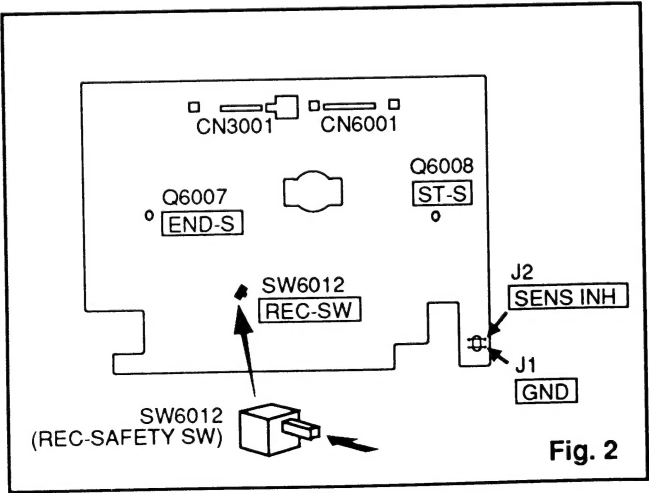
About REC-Safety Switch

Caution:

The REC-Safety Switch is directly mounted on the Main CBA. When the Deck Mechanism Assembly is removed from the Main CBA for servicing, this switch does not work automatically.

What to do for preparation

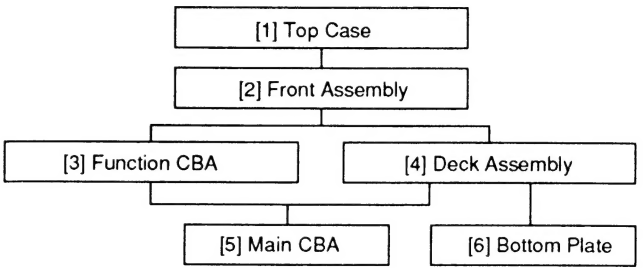
In order to record, press the Rec button while pushing REC-SAFETY SW on the Main CBA.



CABINET DISASSEMBLY INSTRUCTIONS

1. Disassembly Flowchart

This flowchart indicates the disassembly steps to gain access to item(s) to be serviced. When reassembling, follow the steps in reverse order. Bend, route, and dress the cables as they were.



Disassembly Method

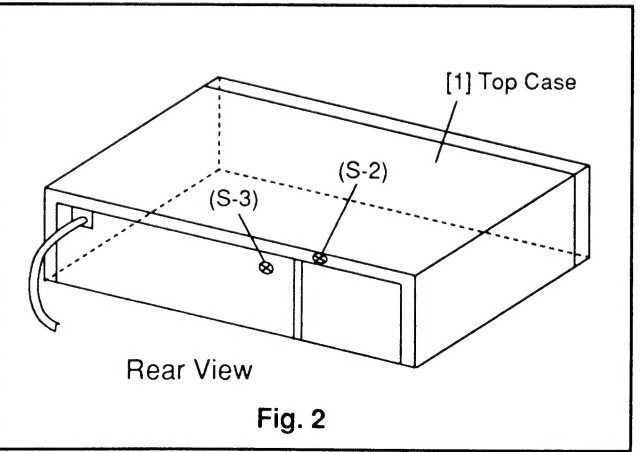
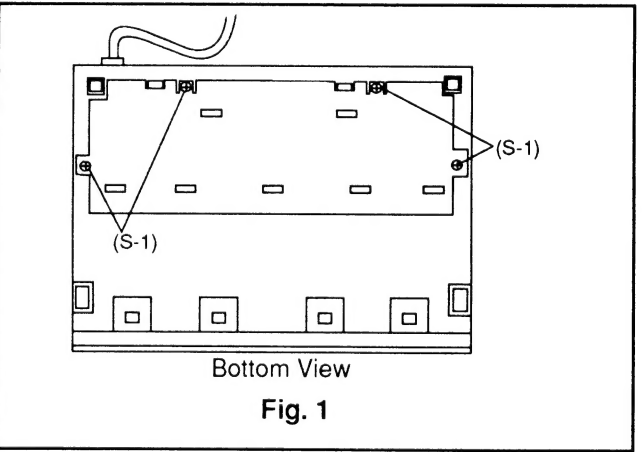
| ID/LOC. No. | PART           | REMOVAL  |                                                           |      |
|-------------|----------------|----------|-----------------------------------------------------------|------|
|             |                | Fig. No. | REMOVE/<br>*UNHOOK/UNLOCK/<br>RELEASE/UNPLUG/<br>DESOLDER | Note |
| [1]         | Top Case       | 1, 2     | 4(S-1), (S-2)                                             | -    |
| [2]         | Front Assembly | 3, 4     | *8(L-1), Deck Holder                                      | 1, 2 |
| [3]         | Function CBA   | 5        | *2(L-2), (CN6001)                                         | 3    |
| [4]         | Deck Assembly  | 2, 6     | (S-3), 5(S-4)<br>Dew Sensor<br>(CN2901, CN3501)           | 4    |
| [5]         | Main CBA       | 7        | *4(L-3)                                                   | 5    |
| [6]         | Bottom Plate   | 8        | *2(L-4)                                                   | 6    |

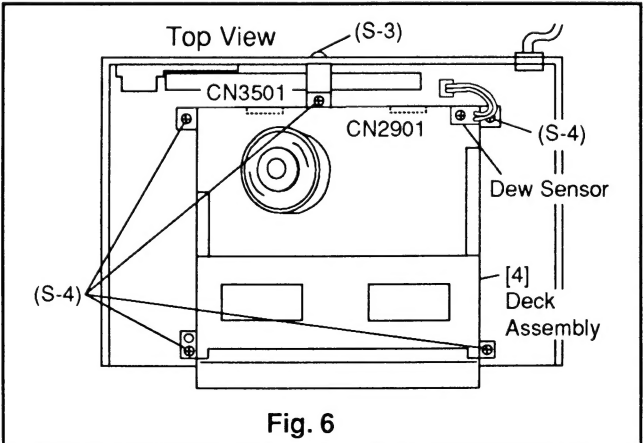
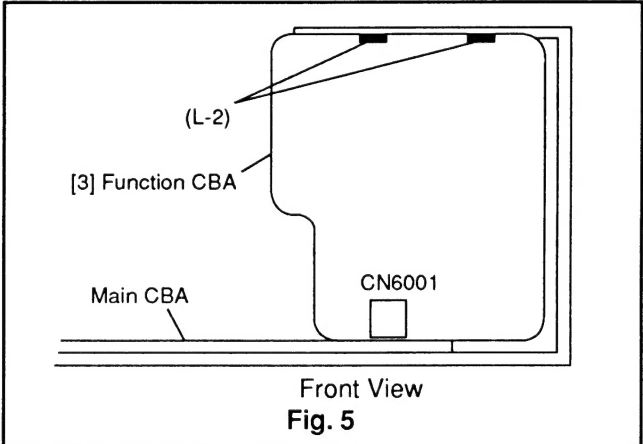
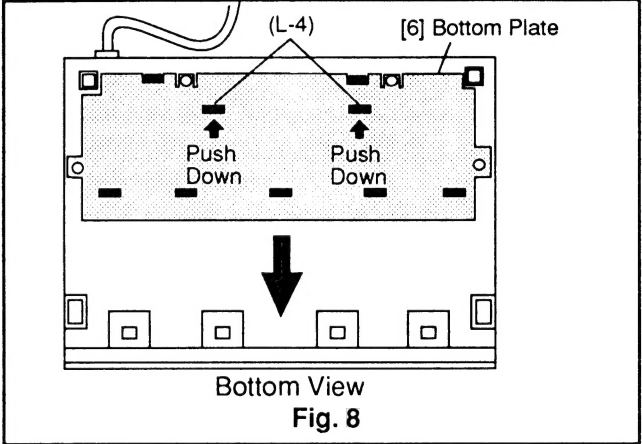
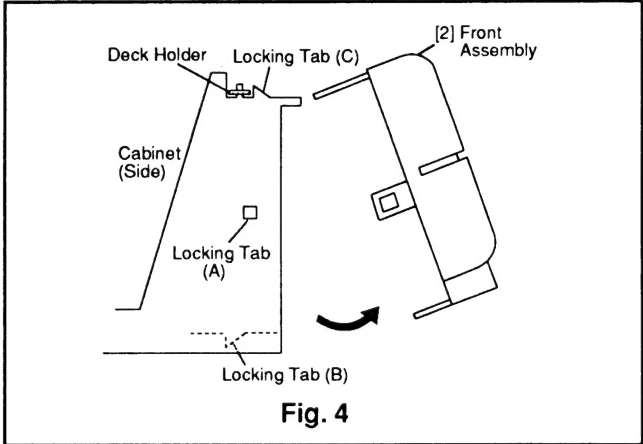
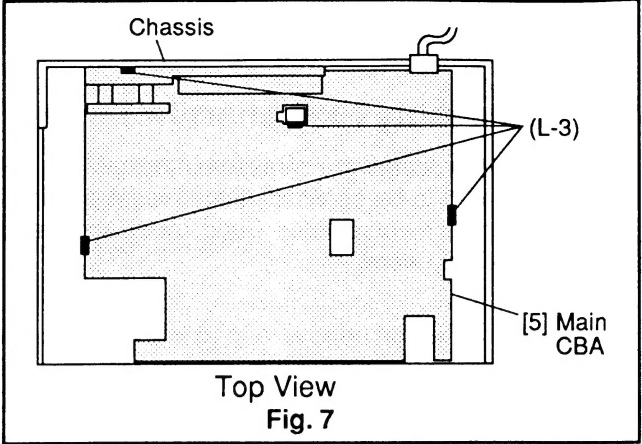
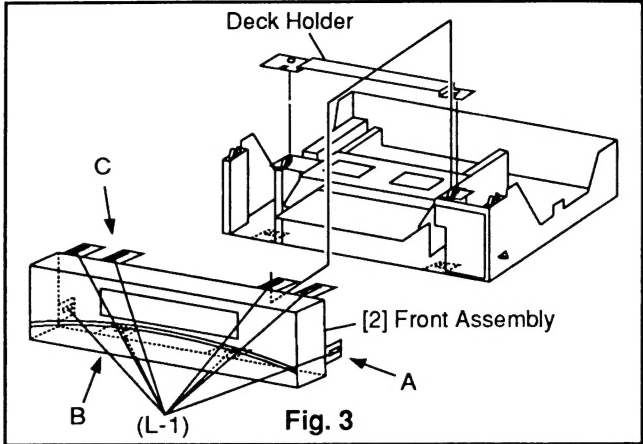
- ①: Identification (location) No. of parts in the figures
- ②: Name of the part
- ③: Figure Number
- ④: Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.  
P=Spring, L=Locking Tab, S=Screw, CN=Connector  
\*=Unhook, Unlock, Release, Unplug, or Desolder  
e.g. 2(S-2) = two Screws (S-2),  
2(L-2) = two Locking Tabs (L-2)
- ⑤: Refer to "Reference Notes".

Reference Notes

**CAUTION** Locking Tabs (L-1) are fragile. Be careful not to break them.

- 1. Release 8 Locking Tabs (L-1). To do this, first release Locking Tab (A) on each side, then two Locking Tabs (B) at the bottom, and then four Locking Tabs (C) at the top. (Fig. 3, 4)
- 2. Remove Deck Holder. (Fig. 3)
- 3. Release 2 Locking Tabs (L-2). Disconnect Connector (CN6001) to remove Function CBA. Hold Main CBA while pulling up Function CBA. (Fig. 5)
- 4. Remove Screw (S-3) and 5 Screws (S-4). Disconnect the connector of Dew Sensor from Main CBA. Then slowly lift Deck Assembly up. Lifting Deck Assembly disconnects 2 Connectors (CN2901, CN3501). (Fig. 2, 6)
- 5. Release 4 Locking Tabs (L-3) as you lift Main CBA. (Fig. 7)
- 6. Slide Bottom Plate in the direction of the bigger arrow while pressing down 2 Locking Tabs (L-4). (Fig. 8)





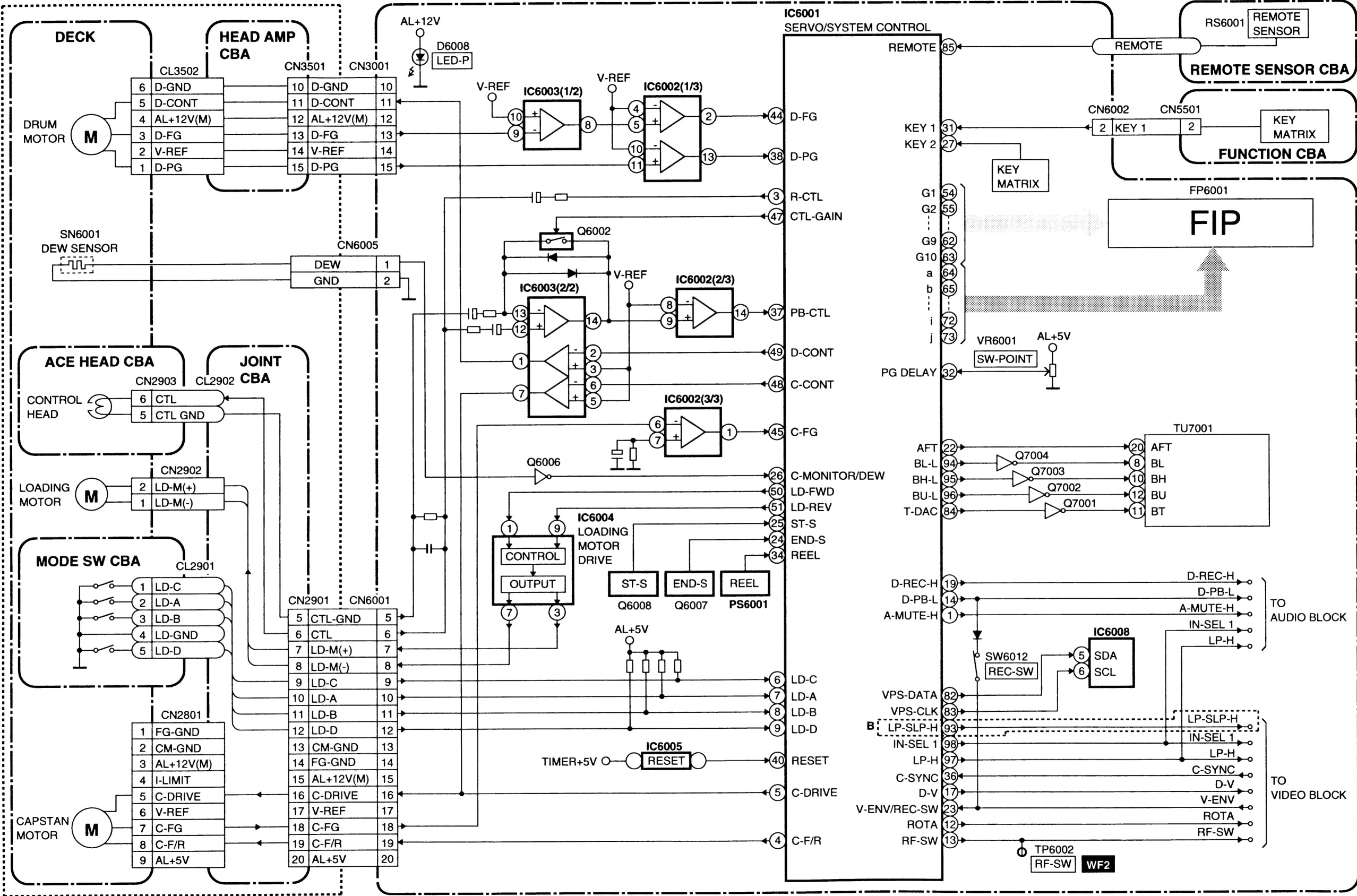
Servo/System Control Block Diagram

BLOCK DIAGRAMS

Comparison Charts of Models and Marks.

BLOCK DIAGRAM FOR SECTION 2  
(DECK MECHANISM)

| MODEL NO.   | MARK |
|-------------|------|
| V-8008CM(N) | A    |
| V-8008SA(N) | B    |



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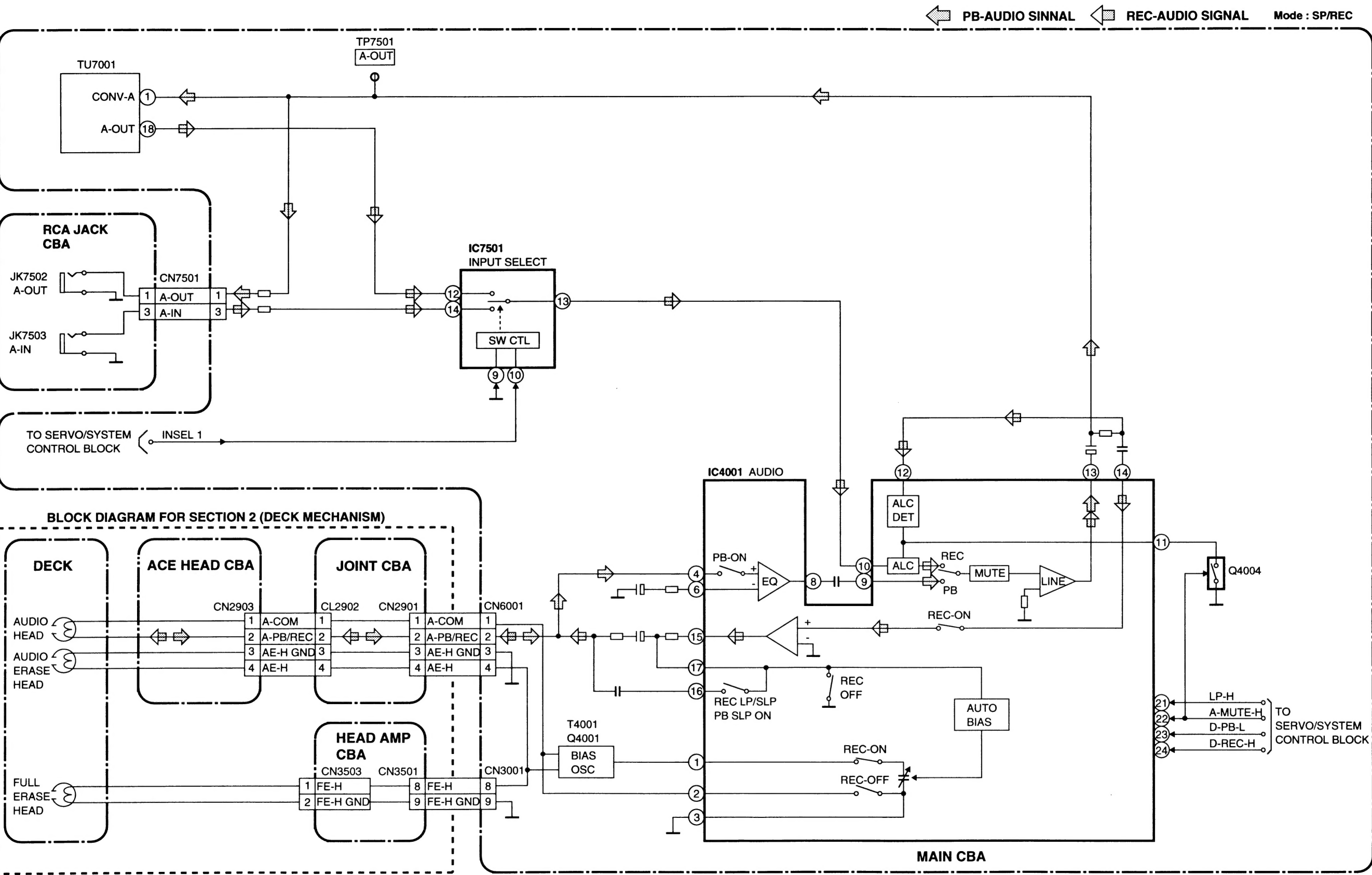
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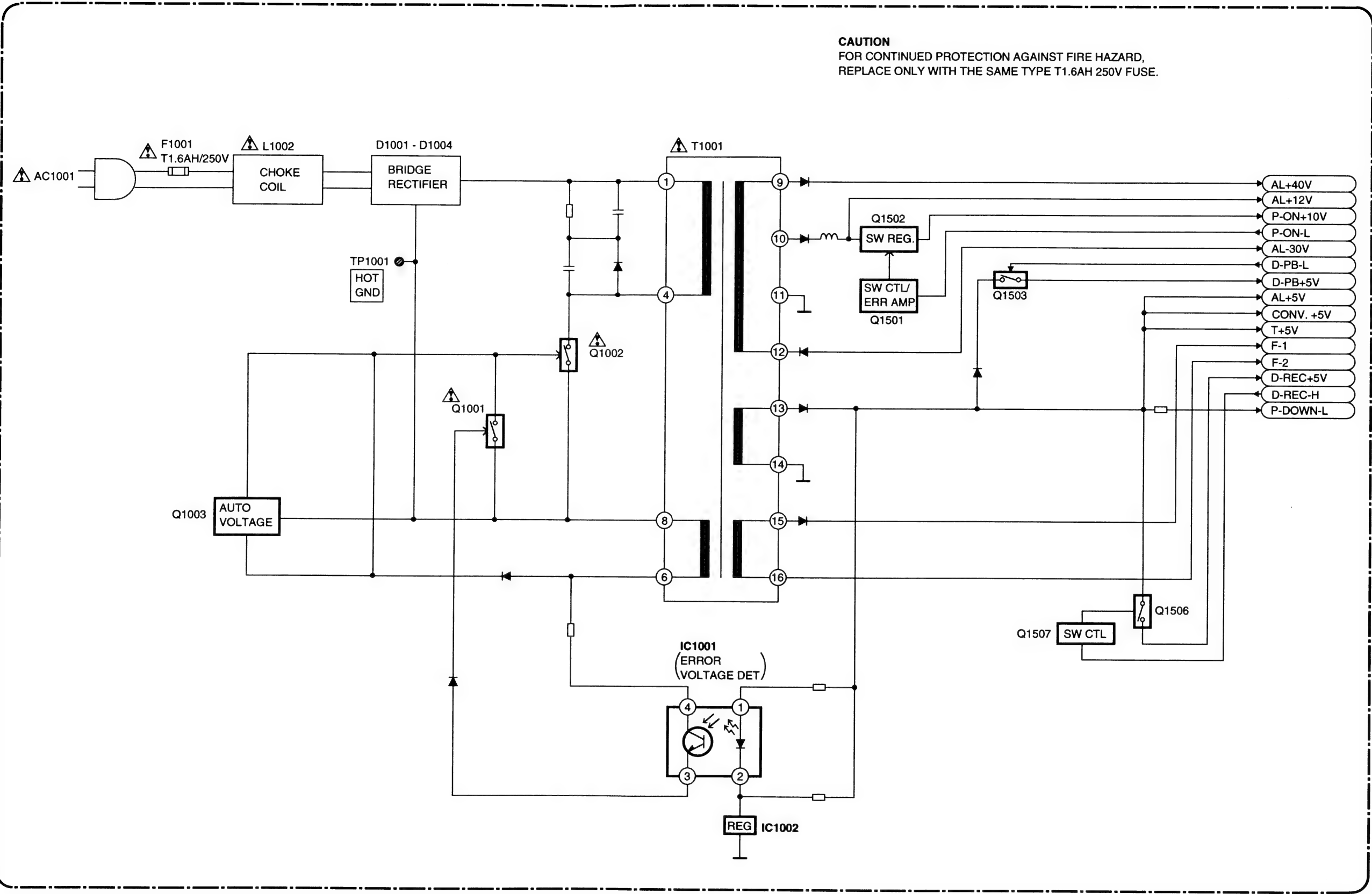


Audio Block Diagram





Power Supply Block Diagram



# ELECTRICAL ADJUSTMENT INSTRUCTIONS

**General Note:** "CBA" is an abbreviation for "Circuit Board Assembly".

**Notes:**

- 1. Electrical adjustments are required after replacing circuit components and certain mechanical parts. It is important to do these adjustments only after all repairs and replacements have been completed. Also, do not attempt these adjustments unless the proper equipment is available.
- 2. To perform these alignment / confirmation procedures, make sure that the tracking control is set in the center position: Press both CHANNEL "UP" and "DOWN" buttons at the same time. ( on VCR only )

**Test Equipment Required**

- 1. Oscilloscope: Dual-trace with 10:1 probe, V-Range: 0.001~50V/Div., F-Frange: AC~DC-20MHz
- 2. PAL Pattern Generator (color bar with 100% white)
- 3. Alignment Tape (F6-A, Blank Tape)
- 4. Spectrum Analyzer

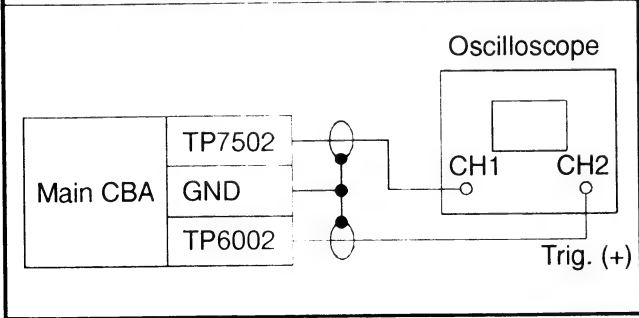
## 1. Head Switching Position Adjustment

**Purpose:** To determine the Head Switching point during playback.

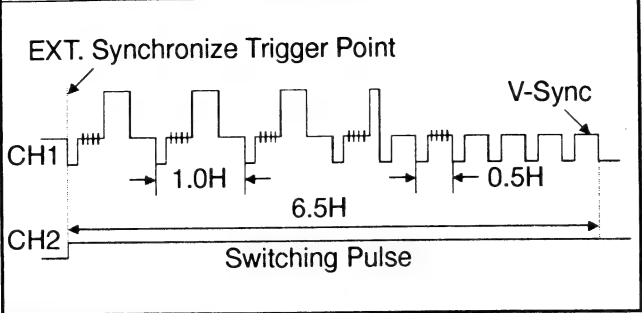
**Symptom of Misadjustment:** May cause Head Switching noise or vertical jitter in the picture.

| Test Point                            | Adj. Point                  | Mode                    | Input |
|---------------------------------------|-----------------------------|-------------------------|-------|
| TP7502(V-OUT)<br>TP6002(RF-SW)<br>GND | VR6001<br>(Switching Point) | PLAY<br>(SP)            | ----  |
| Tape                                  | Measurement Equipment       | Spec.                   |       |
| F6-A                                  | Oscilloscope                | 6.5H±1H<br>(412.7±60µs) |       |

**Connections of Measurement Equipment**



**Figure 1**



**Reference Note:**

TP6002, TP7502, VR6001: MAIN CBA

- 1. Play back the test tape and adjust VR6001 so that the V-sync front edge of the CH1 video output waveform is out the 6.5H(412.7µs) delayed position from the rising edge of the CH2 head switching pulse waveform.

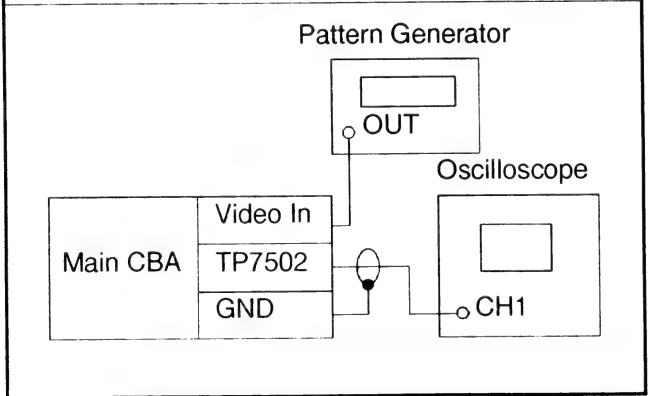
## 2. V-Out Level Adjustment

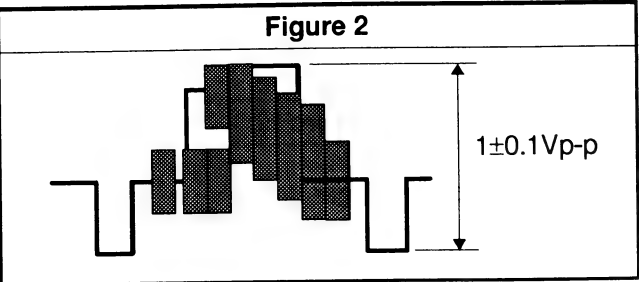
**Purpose:** To set optimum luminance video out level.

**Symptom of Misadjustment:** If the video out level is too high, The TV may overload. If the level is too low, The S/N ratio deteriorates.

| Test Point               | Adj. Point                        | Mode      | Input                                  |
|--------------------------|-----------------------------------|-----------|----------------------------------------|
| TP7502<br>(V-OUT)<br>GND | VR3003<br>(E-E LEVEL)             | E-E       | Color Bar<br>Signal with<br>100% white |
| Tape                     | Measurement Equipment             | Spec.     |                                        |
| ----                     | Pattern Generator<br>Oscilloscope | 1±0.1Vp-p |                                        |

**Connections of Measurement Equipment**





**Reference Notes:**

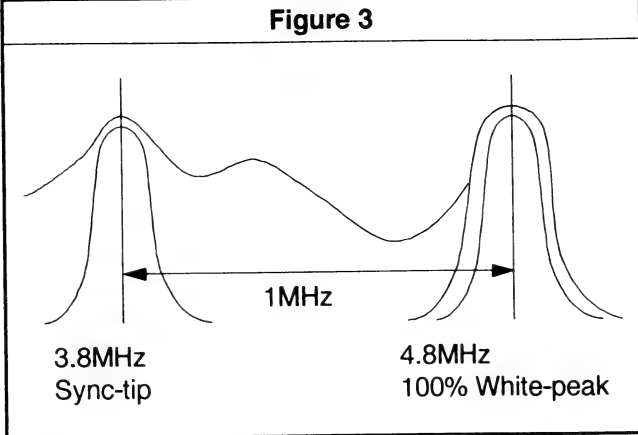
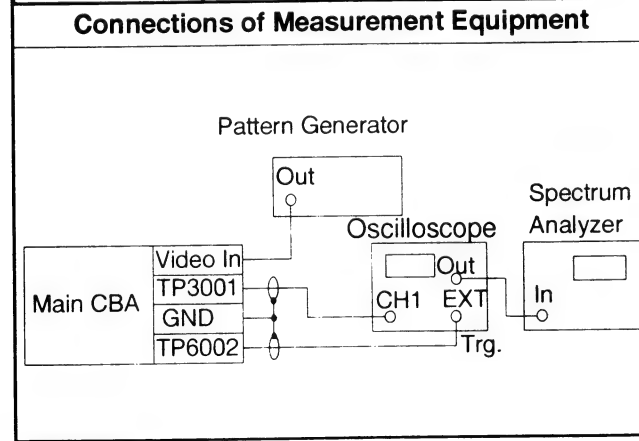
- TP7502, VR3003 : MAIN CBA
1. Input the color bar signal with window 100% white to video input.
  2. Adjust VR3003 so that the video level becomes  $1\pm0.1V_{p-p}$ . (Connected to TV)

### 3. FM Carrier Deviation Adjustment

**Purpose:** To align FM carrier deviation.

**Symptom of Misadjustment:** If the deviation is not correct, abnormal contrast of light and dark on the picture may be seen.  
If the carrier deviation is not correct, Beats appear on the picture.

| Test Point                       | Adjustment Point                       | Mode                                                           | Input                     |
|----------------------------------|----------------------------------------|----------------------------------------------------------------|---------------------------|
| TP3001 (Y-REC)<br>TP6002 (RF-SW) | VR3001 (Deviation)<br>VR3002 (Carrier) | REC. (SP)                                                      | Color Bar with 100% white |
| Tape                             | Measurement Equipment                  | Spec.                                                          |                           |
| Blank Tape                       | Frequency Counter                      | Sync-tip<br>$3.8\pm0.1MHz$<br>100%white peak<br>$4.8\pm0.1MHz$ |                           |



**Reference Notes:**

- TP3001, TP6002, VR3001, VR3002 : MAIN CBA
- Reference Notes:**
1. Input color bar signal with 100% white to video input.
  2. Adjust Sync-tip to  $3.8MHz\pm0.1MHz$  by VR3001, White-peak for  $4.8MHz\pm0.1MHz$  by VR3002.

## SCHEMATIC DIAGRAMS / CBA'S AND TEST POINTS

### Standard Notes

#### WARNING

Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the mark "△" in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

#### Capacitor Temperature Markings

| Mark | Capacity change rate | Standard temperature | Temperature range |
|------|----------------------|----------------------|-------------------|
| (B)  | $\pm10\%$            | 20°C                 | -25~+85°C         |
| (F)  | +30 -80%             | 20°C                 | -25~+85°C         |
| (SR) | $\pm15\%$            | 20°C                 | -25~+85°C         |
| (Z)  | +30 -80%             | 20°C                 | -10~+70°C         |

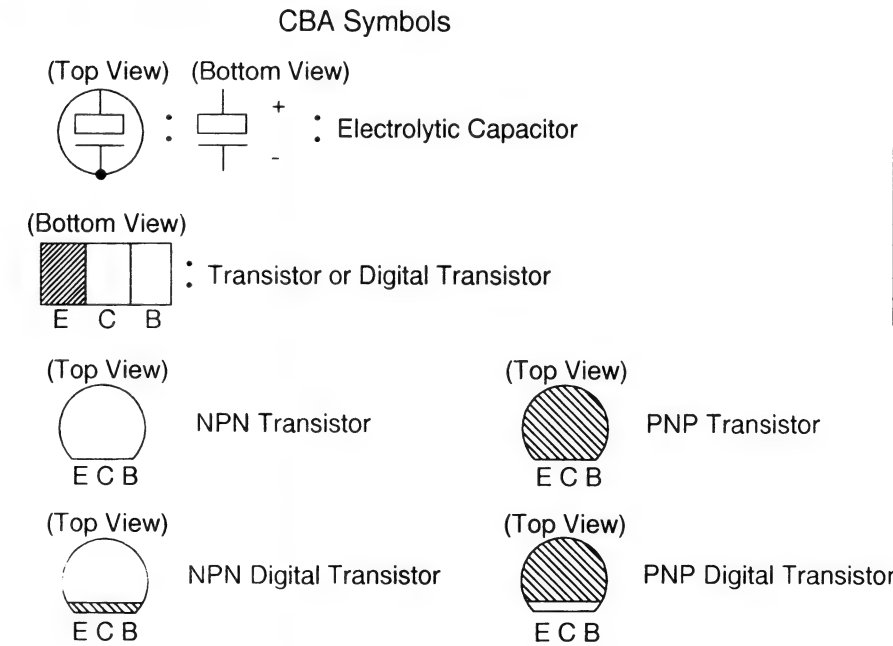
### Note:

- 1 Do not use the part number shown on these drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since these drawings were prepared.
- 2 All resistance values are indicated in ohms ( $K=10^3$ ,  $M=10^6$ ).
- 3 Resistor wattages are 1/5W or 1/6W unless otherwise specified.
- 4 All capacitance values are indicated in  $\mu F$  ( $P=10^{-6}\mu F$ ).
- 5 All voltages are DC voltages unless otherwise specified.
- 6 Electrical parts such as capacitors, connectors, diodes, IC's, transistors, resistors, switches, and fuses are identified by four digits. The first two digits are not shown for each component. In each block of the diagram, there is a note such as shown below to indicate these abbreviated two digits.

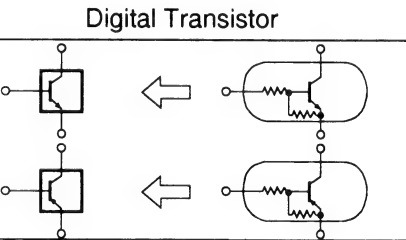
#### TUNER BLOCK SYMBOL NO. 70\*\*

Example: "C08" in this "TUNER BLOCK" is C7008.

Capacitors and transistors are represented by the following symbols.

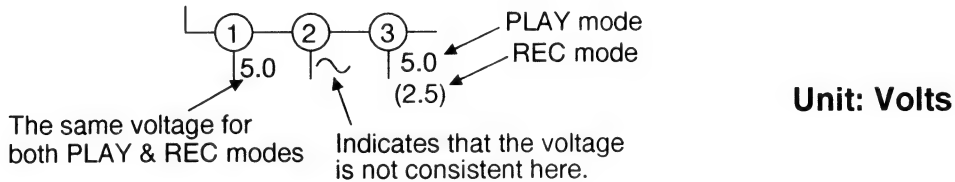


### Schematic Diagram Symbols



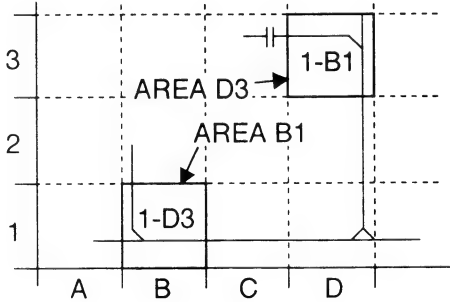
LIST OF CAUTION, NOTES, AND SYMBOLS USED IN THE SCHEMATIC DIAGRAMS ON THE FOLLOWING PAGES:

1. **CAUTION:**  
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE.
2. **CAUTION:**  
Voltage selectable power supply circuit is used in this unit.  
If Main Fuse (F01) is blown, first check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.
3. **Note:**  
(1)Do not use the part number shown on the drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since the drawings were prepared.  
(2)To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list section of the service manual.
4. Wire Connectors  
(1)Prefix symbol "CN" means "connector." (Can disconnect and reconnect)  
(2)Prefix symbol "CL" means "wire-solder holes of the PCB." (Wire is soldered directly.)
5. Note: Mark "•" is a leadless (chip) component.
6. Mode: SP/REC
7. Voltage indications for PLAY and REC modes on the Schematics are as shown below:



8. How to read converged lines

- 1-D3  
└─┬─┐ Distinction Area  
  └─┬─┐ Line Number  
     └─┬─┐ (1 to 3 digits)  
      └─┬─┐ Examples:  
          1. "1-D3" means that line number "1" goes to area "D3".  
          2. "1-B1" means that line number "1" goes to area "B1".



9. Test Point Information

- ⊙ : Indicates a test point with a jumper wire across a hole in the PCB.
- : Used to indicate a test point with a component lead on foil side.
- ⊘ : Used to indicate a test point with no test pin.
- : Used to indicate a test point with a test pin.

## 3



## BK4500F01A01

BH2150F01001C

BH2150F01001D

1

| RS6001(Remote Sensor) |            | Remote Sensor CBA No. |                   |
|-----------------------|------------|-----------------------|-------------------|
| Part No.              | Maker No.  | BH2150<br>F01001C     | BH2150<br>F01001D |
| USESJRSKK008          | HC-278N    | ×                     | ○                 |
| USESJRSSH009          | GP1U582X   | ×                     | ○                 |
| USESJRSJR004          | NJH32H367A | ○                     | ×                 |

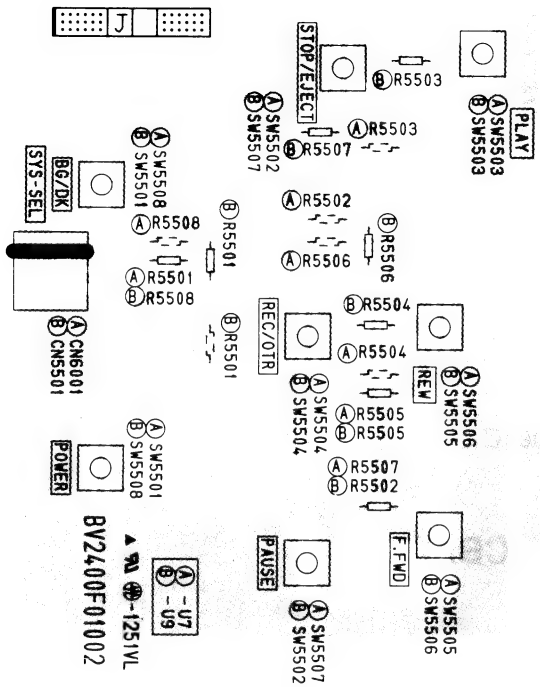
A

B

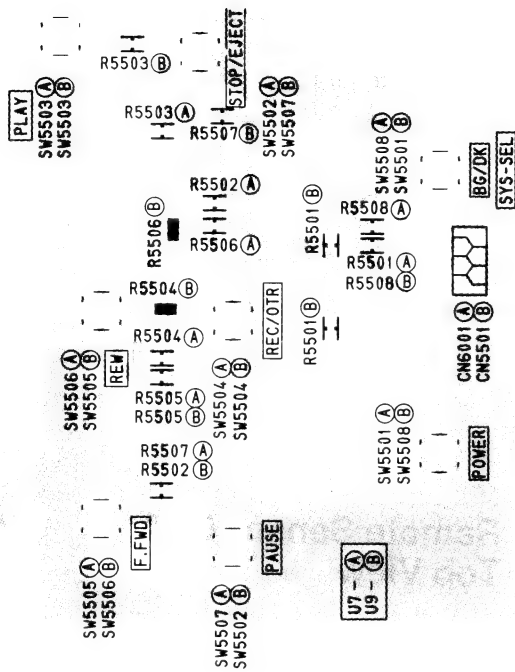
C

☐

Function CBA Top View  
(Serial No. H42413501 ~ )

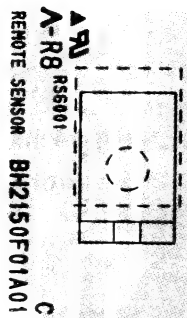


Function CBA Bottom View  
(Serial No. H42413501 ~ )

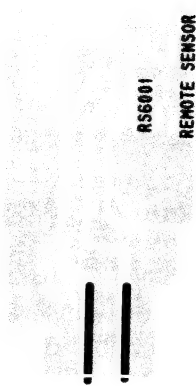


BV2400F01002

Remote Sensor CBA  
Top View



Remote Sensor CBA  
Bottom View



BH2150F01A01C

Remote Sensor CBA  
Top View



Remote Sensor CBA  
Bottom View



BH2150F01A01D

EXCHANGEABILITY OF REMOTE SENSOR CBA  
FOR PART NO. OF REMOTE SENSOR.

| RS6001(Remote Sensor) |            | Remote Sensor CBA No. |               |
|-----------------------|------------|-----------------------|---------------|
| Part No.              | Maker No.  | BH2150F01A01C         | BH2150F01A01D |
| USESJRSKK008          | HC-278N    | ×                     | ○             |
| USESJRSSH009          | GP1U582X   | ×                     | ○             |
| USESJRSJR004          | NJH32H367A | ○                     | ×             |

Note:CBA No.'s are shown in Remote Sensor Top/Bottom View.

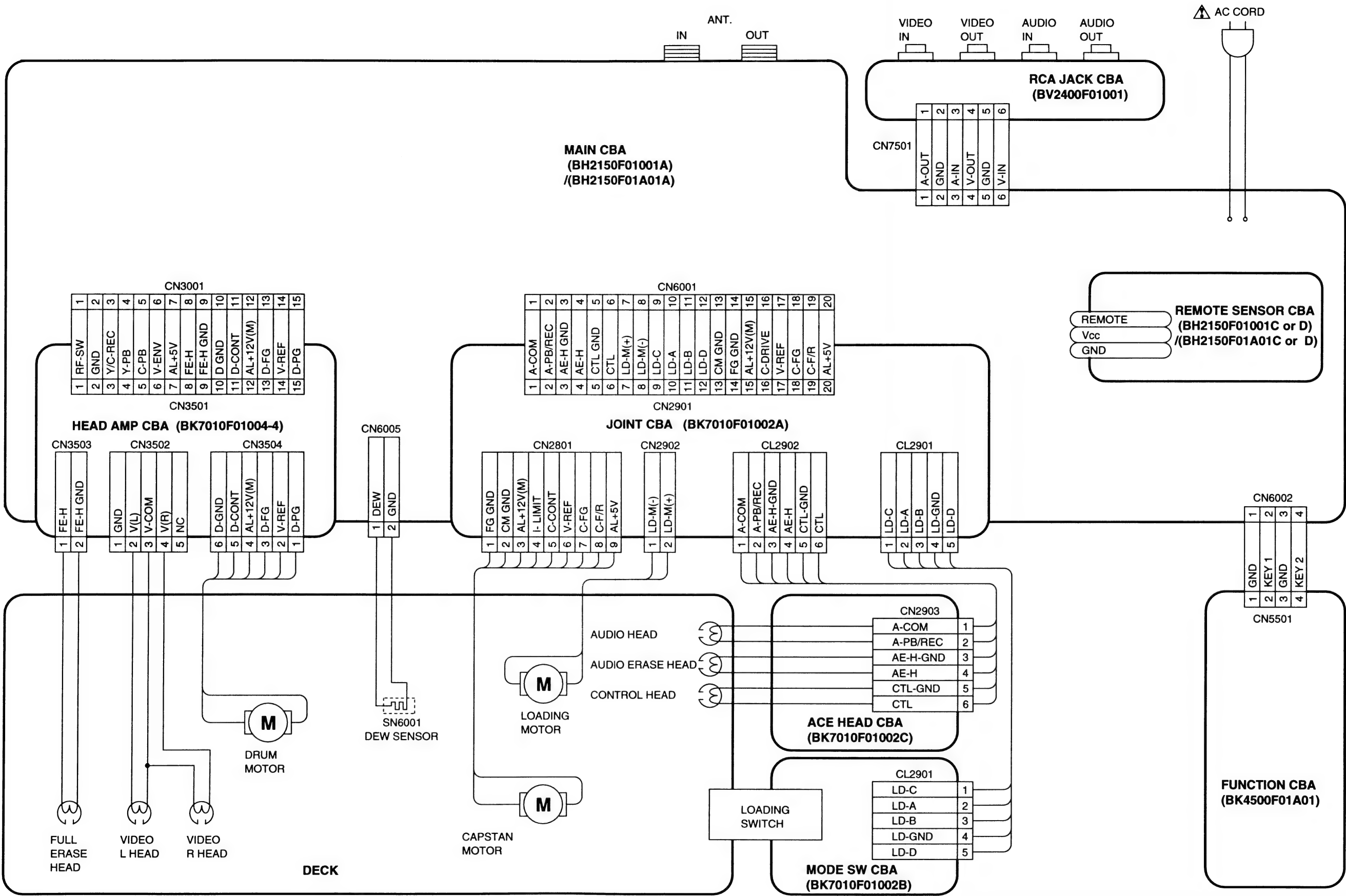


RCA Jack CBA Top View

RCA Jack CBA Bottom View



WIRING DIAGRAM



SYSTEM CONTROL TIMING CHARTS

Mode SW : LD-A/LD-B/LD-C/LD-D

| LD-SW |      |      |      | Symbol |                                    |
|-------|------|------|------|--------|------------------------------------|
| LD-A  | LD-B | LD-C | LD-D |        |                                    |
| L     | H    | H    | H    | EJ     | Eject                              |
| H     | H    | H    | H    | CL     | REW Reel                           |
| L     | L    | H    | H    | SB     | Stop (B)                           |
| H     | L    | H    | H    | TL     | Brake Cancel                       |
| H     | L    | L    | H    | FB     |                                    |
| H     | H    | L    | H    | SF     | FF / REW, Stop (A)                 |
| H     | H    | L    | L    | AU     |                                    |
| H     | H    | H    | L    | AL     | Play / REC (FS Pause 2 Head Still) |
| H     | L    | H    | L    | SS     | 4 Head Slow / Still                |
| H     | H    | H    | H    | GC     | Capstan Reversal                   |
| L     | H    | H    | L    | RS     | RS (REV Reel)                      |

↑  
Note:

EJ → RS : Loading FWD (LM-FWD "H", LM-REV "L")  
RS → EJ : Loading REV (LM-FWD "L", LM-REV "H")  
Stop (A) = Loading  
Stop (B) = Unloading

Note :

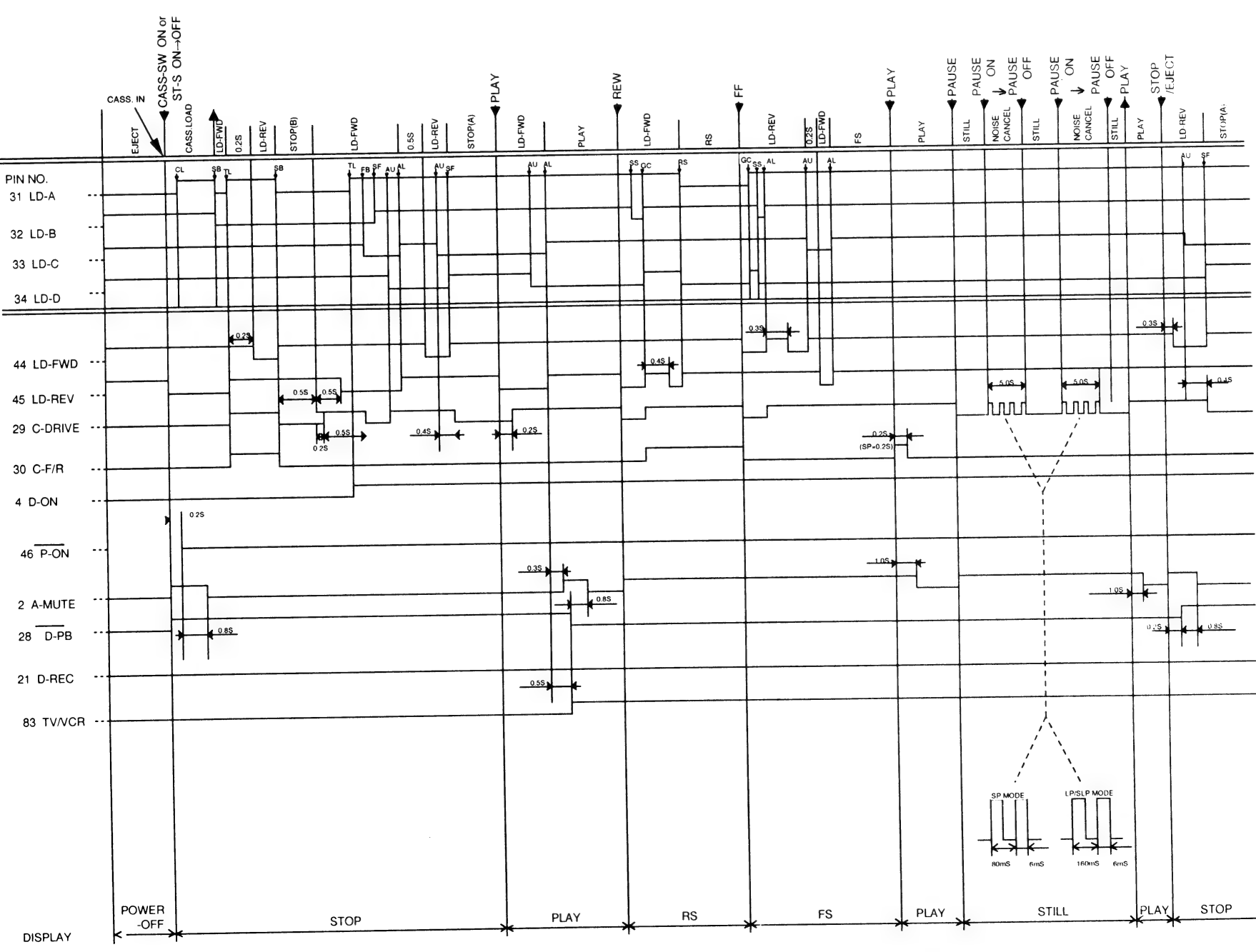
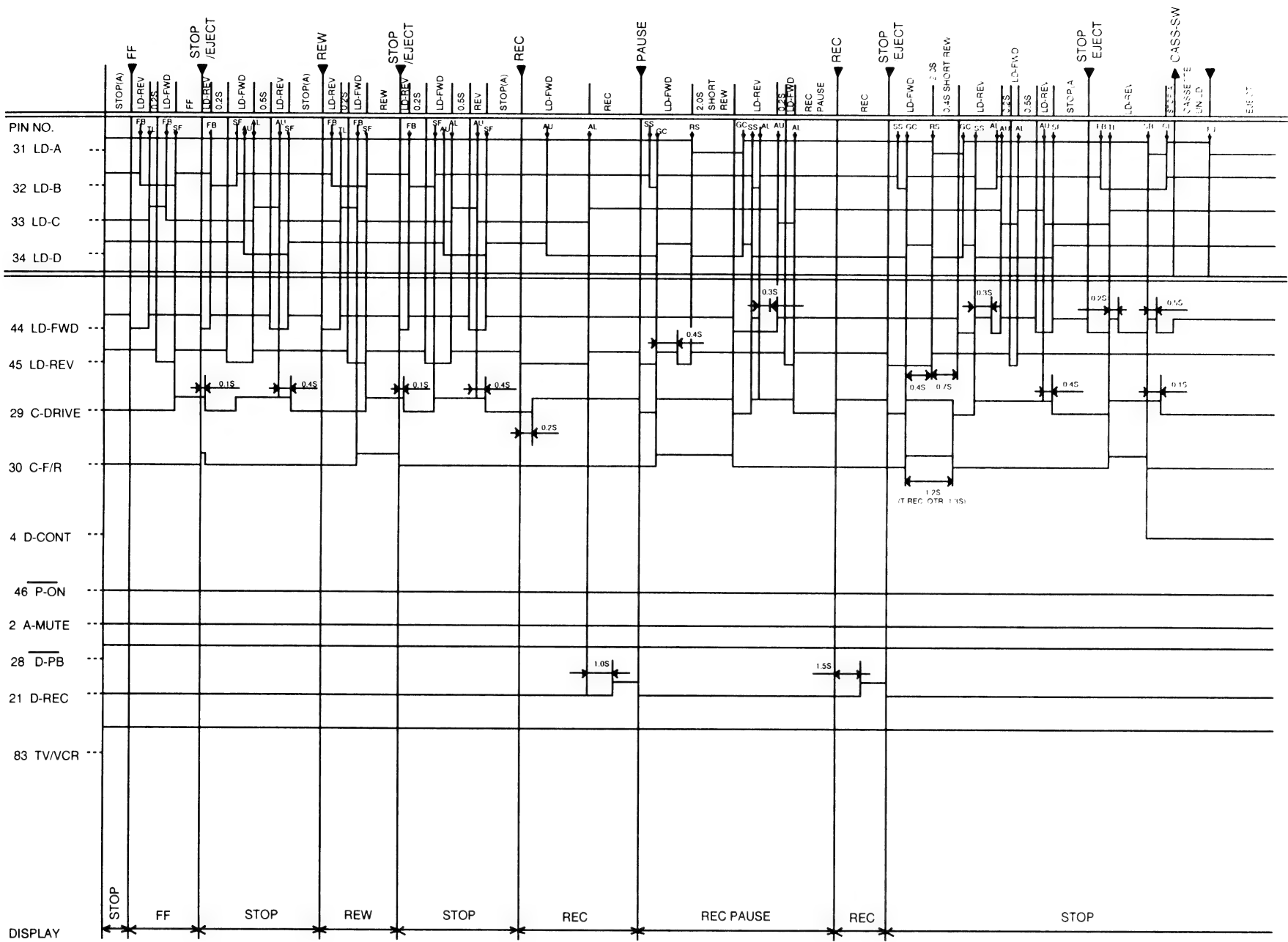
| Symbol | Loading Status                         |
|--------|----------------------------------------|
| EJ     | Eject                                  |
| CL     | Eject ~ Loading Completion             |
| SB     | REW ~ Stop(B)                          |
| TL     | Stop(B) ~ Brake Cancel                 |
| FB     | Brake Cancel ~ FF / REW                |
| SF     | FF / REW ~ Stop(A)                     |
| AU     | Stop(A) ~ Play / REC                   |
| AL     | Play / REC ~ 4 Head Still / Slow       |
| SS     | 4 Head Still / Slow ~ Capstan Reversal |
| GC     | Capstan Reversal ~ REW Reel            |
| RS     | REW                                    |

Loading Motor/Control

| LM-FWD | LM-REV | Description              |
|--------|--------|--------------------------|
| H      | H      | Stop                     |
| H      | L      | Loading Forward Rotation |
| L      | H      | Loading Reverse Rotation |

Capstan Motor/Control

| C-DRIVE | C-F/R | Description                     |
|---------|-------|---------------------------------|
| L       | L/H   | Stop, The brake is not applied. |
| H       | L     | Capstan, Reel Forward Rotation  |
| H       | H     | Capstan, Reel Reverse Rotation  |



# IC PIN FUNCTION DESCRIPTION

## IC6001 ( SERVO / SYSTEM CONTROL IC )

"H" ≥ 4.5V, "L" ≤ 0V

| Pin No. | IN/ OUT | Signal Name | Function                                                       | Active Level |
|---------|---------|-------------|----------------------------------------------------------------|--------------|
| 1       | OUT     | A-MUTE      | Audio Mute Output (Mute="H")                                   | H            |
| 2       | OUT     | LP/SLP-PB   | Special Play back Tape Speed LP or SLP mode = "H" output       | H            |
| 3       | OUT     | REC-CTL     | Capstan Motor Control Pulse Input at Rec Mode                  | H/L          |
| 4       | OUT     | C-F/R       | Capstan Motor FWD/REV Control Signal (Forward="L"/Reverse="H") | H/L          |
| 5       | OUT     | C-DRIVE     | Capstan Motor Drive Signal Output (Rotation="H"/Stop = "L")    | H            |
| 6       | IN      | LD-C        | Loading Position Detector                                      | H/L          |
| 7       | IN      | LD-A        | Loading Position Detector                                      | H/L          |
| 8       | IN      | LD-B        | Loading Position Detector                                      | H/L          |
| 9       | IN      | LD-D        | Loading Position Detector                                      | H/L          |
| 10      | OUT     | N.U.        | Not Used                                                       | —            |
| 11      | OUT     | N.U.        | Not Used                                                       | —            |
| 12      | OUT     | ROTA        | Color Phase Rotary Changeover Signal                           | H/L          |
| 13      | OUT     | RF-SW       | Video Head Switching Pulse                                     | H/L          |
| 14      | OUT     | D-PB-L      | Video/Audio Instruction Signal                                 | L            |
| 15      | —       | N.C.        | Not Used                                                       | —            |
| 16      | —       | N.C.        | Not Used                                                       | —            |
| 17      | OUT     | D-V/SYNC    | Dummy V-Sync Output                                            | H            |

| Pin No. | IN/ OUT | Signal Name      | Function                                                                            | Active Level |
|---------|---------|------------------|-------------------------------------------------------------------------------------|--------------|
| 18      | OUT     | GRAY-L           | "L" Output at NOSignal                                                              | L            |
| 19      | OUT     | D-REC-H          | Video/Audio Recording Instruction Signal (Record="H")                               | H            |
| 20      | OUT     | P-ON-L           | Power-ON Control Signal                                                             | L            |
| 21      | OUT     | LED-P            | Pulse Signal for ST/END Sensor                                                      | H/L          |
| 22      | IN      | AFT              | Tuner AFC Voltage Signal Input                                                      | A/D          |
| 23      | IN      | V-ENV / REC-SW   | Video DC Envelope Voltage Input /Recording Safety SW Detect                         | A/D          |
| 24      | IN      | END-S            | Tape End Position Detect                                                            | A/D          |
| 25      | IN      | ST-S             | Tape Start Position Detect                                                          | A/D          |
| 26      | IN      | C-MONITOR /DEW   | Capstan Motor Control Voltage Monitor Input/DEW Sensor Position Detect Signal Input | A/D          |
| 27      | IN      | KEY IN-2/ CAS-SW | A/D Key Data Signal Input                                                           | A/D          |
| 28      | —       | VREF             | A VREF A/D Converter Reference Voltage Input (All: 5V)                              | —            |
| 29      | —       | Vss              | A Vss A/D Converter Power Supply (GND)                                              | —            |
| 30      | —       | A VDD            | A Vss A/D Converter Power Supply (Back Up 5V)                                       | —            |
| 31      | IN      | KEY1             | A/D Key Data Signal Input                                                           | A/D          |
| 32      | IN      | PG-DELAY /TEST   | RF-SW Signal Delay Adjust Voltage Input/Test                                        | A/D          |
| 33      | IN      | S-REEL           | Not Used                                                                            | A/D          |

| Pin No. | IN/ OUT | Signal Name | Function                                           | Active Level |
|---------|---------|-------------|----------------------------------------------------|--------------|
| 34      | IN      | T-REEL      | Take Up Reel Rotation Signal                       | A/D          |
| 35      | IN      | P-DOWN-L    | Power Down Detection Input                         | L            |
| 36      | IN      | C-SYNC      | Composite Sync Signal Input                        | PULSE        |
| 37      | IN      | PB-CTL      | Capstan Motor Control Pulse Input at Playback Mode | PULSE        |
| 38      | IN      | D-PG        | Drum Pulse Generator Input                         | PULSE        |
| 39      | —       | GND         | GND                                                | —            |
| 40      | IN      | RESET       | System Reset Signal (Usually="H"/Reset= "L")       | L            |
| 41      | —       | Vss         | Vss                                                | —            |
| 42      | —       | X2          | MAIN Clock 12 MHz (OUT)                            | —            |
| 43      | —       | X1          | MAIN Clock 12 MHz (IN)                             | —            |
| 44      | IN      | D-FG        | Drum Frequency Generator Input                     | PULSE        |
| 45      | IN      | C-FG        | Capstan Frequency Generator Signal Input           | PULSE        |
| 46      | —       | N.C.        | —                                                  | —            |
| 47      | OUT     | CTL-GAIN    | CTL Amp Gain Switching Signal                      | H/L          |
| 48      | OUT     | C-CONT      | Capstan Motor Control Signal                       | PWM          |
| 49      | OUT     | D-CONT      | Drum Motor Control Signal                          | PWM          |
| 50      | OUT     | LM-FWD      | Loading Motor Forward Control Output               | H            |
| 51      | OUT     | LM-REV      | Loading Motor Reverse Control Output               | H            |
| 52      | —       | N.C.        | —                                                  | —            |
| 53      | —       | N.U.        | Not Used                                           | —            |
| 54      | OUT     | G1          | Display Digit Output                               | H            |
| 55      | OUT     | G2          | Display Digit Output                               | H            |
| 56      | OUT     | G3          | Display Digit Output                               | H            |
| 57      | OUT     | G4          | Display Digit Output                               | H            |
| 58      | OUT     | G5          | Display Digit Output                               | H            |

| Pin No. | IN/ OUT | Signal Name | Function                         | Active Level |
|---------|---------|-------------|----------------------------------|--------------|
| 59      | OUT     | G6          | Display Digit Output             | H            |
| 60      | OUT     | G7          | Display Digit Output             | H            |
| 61      | OUT     | G8          | Display Digit Output             | H            |
| 62      | OUT     | G9          | Display Digit Output             | H            |
| 63      | OUT     | G10         | Display Digit Output             | H            |
| 64      | OUT     | a           | Display Segment Output           | H            |
| 65      | OUT     | b           | Display Segment Output           | H            |
| 66      | OUT     | c           | Display Segment Output           | H            |
| 67      | OUT     | d           | Display Segment Output           | H            |
| 68      | OUT     | e           | Display Segment Output           | H            |
| 69      | OUT     | f           | Display Segment Output           | H            |
| 70      | OUT     | g           | Display Segment Output           | H            |
| 71      | OUT     | h           | Display Segment Output           | H            |
| 72      | OUT     | i           | Display Segment Output           | H            |
| 73      | OUT     | j           | Display Segment Output           | H            |
| 74      | —       | VPS-CHK     | Not Used                         | —            |
| 75      | —       | N.U.        | Not Used                         | —            |
| 76      | —       | SOFT-L      | Not Used                         | —            |
| 77      | —       | N.U.        | Not Used                         | —            |
| 78      | —       | -28V        | -28V                             | —            |
| 79      | OUT     | N.U.        | Not Used                         | —            |
| 80      | OUT     | N.U.        | Not Used                         | —            |
| 81      | OUT     | N.U.        | Not Used                         | —            |
| 82      | IN/ OUT | VPS-DATA    | VPS IC/MEMORY IC Control (Data)  | H/L          |
| 83      | OUT     | VPS-CLK     | VPS IC/MEMORY IC Control (Clock) | H/L          |

| Pin No. | IN/OUT | Signal Name | Function                         | Active Level |
|---------|--------|-------------|----------------------------------|--------------|
| 84      | OUT    | T-DAC       | Tuner Voltage Control PWM Output | —            |
| 85      | IN     | REMOTE      | Remote Control Input Signal      | L            |
| 86      | —      | X' TAL2     | Sub Clock 32kHz(IN)              | —            |
| 87      | —      | X' TAL1     | Sub Clock 32kHz(OUT)             | —            |
| 88      | —      | Vss         | Vss                              | —            |
| 89      | —      | VDD         | Back Up 5V (VDD)                 | —            |
| 90      | —      | Vpp         | Back Up 5V                       | —            |
| 91      | —      | NC          | Not Used                         | —            |
| 92      | OUT    | BG/DK       | Not Used                         | —            |
| 93      | IN     | N.U.        | Not Used                         | PULSE        |
| 94      | OUT    | BL-L        | Output for Tuner Band Selection  | L            |
| 95      | OUT    | BH-L        | Output for Tuner Band Selection  | L            |
| 96      | OUT    | BU-L        | Output for Tuner Band Selection  | L            |
| 97      | OUT    | LP-H        | Tape Speed LP Mode= " H" Output  | H            |
| 98      | OUT    | INSEL-1     | Input Selector Control Signal 1  | H/L          |
| 99      | —      | N.U.        | Not Used                         | —            |
| 100     | —      | N.U.        | Not Used                         | —            |

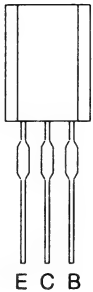
**NOTE :**

Abbreviation for Active Level

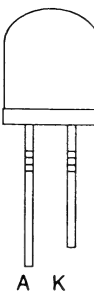
PWM ----- Pulse Wide Modulation

A/D ----- Analog - Digital Converter

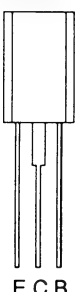
**LEAD IDENTIFICATION**



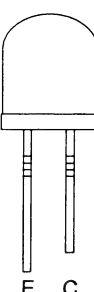
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2SC2839  
2SC4204  
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KRA103M  
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KRA109M  
2SA1346  
2SC3576



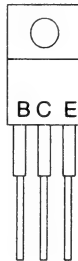
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KSR2208  
2SA1347  
KSR1203  
KTA1267  
KSA1175  
KTC3199  
KSR2785



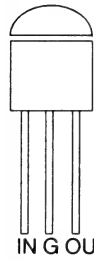
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2SC3246



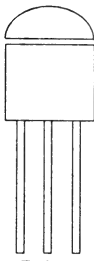
PT380F(B)



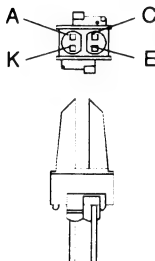
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2SC3866



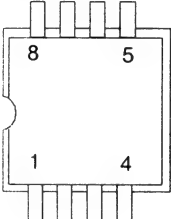
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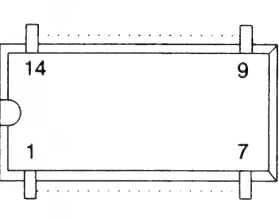
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LN66A.FN  
IR940 IR4  
IR940 IR5



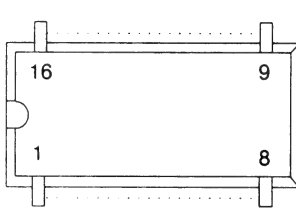
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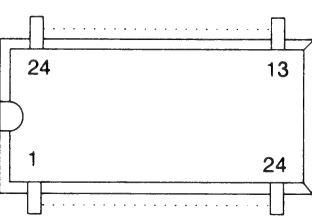
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ST24C01B1  
X24C01AP



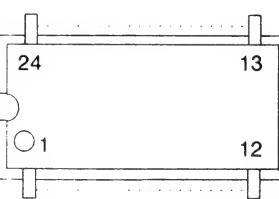
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KIA339  
KA324  
KIA324P



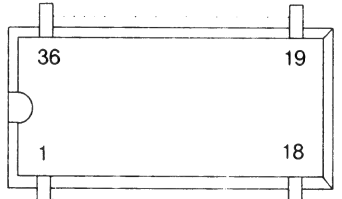
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μPD4052BC  
TC4052BP  
HEF4052BP



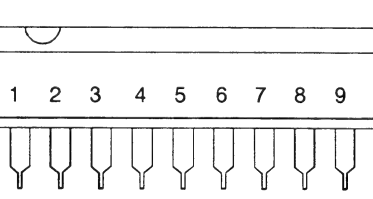
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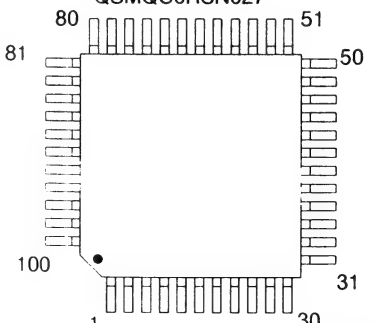
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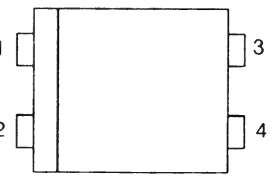
LA7347



TA7291S



QSMQA0RSN027  
QSMQB0RSN027  
QSMQC0RSN027



PC120F

**Note:**

- A: Anode
- K: Cathode
- E: Emitter
- C: Collector
- B: Base
- R: Reference

1-11-3

H2110PIN

1-12-1

V2400LE



# DECK MECHANISM SECTION

## VIDEO CASSETTE RECORDER

### V-8008CM(N) / V-8008SA(N)

#### Sec. 2: Deck Mechanism Section

- Standard Maintenance
- Alignment for Mechanism
- Disassembly/Assembly of Mechanism
- Schematic Diagrams
- CBA' s

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STANDARD MAINTENANCE

Service Schedule of Components

H: Hours    ○: Check    ●: Change

| Deck     |                           | Periodic Service Schedule |         |         |         |
|----------|---------------------------|---------------------------|---------|---------|---------|
| Ref. No. | Parts Name                | 1,000 H                   | 2,000 H | 3,000 H | 4,000 H |
| B2       | Cylinder Assembly         | ○                         | ●       | ○       | ●       |
| B3       | Loading Motor Assembly    |                           |         | ●       |         |
| B6       | Pinch Roller Arm Assembly |                           | ●       |         | ●       |
| B8       | Pulley Assembly           |                           | ●       |         | ●       |
| B21      | Loading Belt              |                           | ●       |         | ●       |
| B27      | Band Brake Assembly       |                           | ●       |         | ●       |
| B28      | Main Brake S Assembly     |                           | ●       |         | ●       |
| B29      | Main Brake T Assembly     |                           | ●       |         | ●       |
| B30      | T Brake Arm Assembly      |                           | ●       |         | ●       |
| B31      | AC Head Assembly          |                           |         | ●       |         |
| B32      | Reel Base Assembly        |                           |         | ●       |         |
| B37      | Capstan Motor             |                           | ●       |         | ●       |
| B52      | Capstan Belt              |                           | ●       |         | ●       |
| B54      | Ground Brush Assembly     |                           |         | ●       |         |
| B73      | FE Head                   |                           |         | ●       |         |
| B86      | F Brake Assembly          |                           | ●       |         | ●       |
| B132     | Clutch Assembly           |                           | ●       |         | ●       |
| B133     | Arm Idler Assembly        |                           | ●       |         | ●       |

- Note:**
- 1. Clean all parts for the tape transport ( Upper Drum with Video Head / Pinch Roller / ACE Head / FE Head ) using 90% Isopropyl Alcohol.
  - 2. After cleaning the parts, do all DECK ADJUSTMENTS.
  - 3. For the reference numbers listed above, refer to Deck Exploded Views.

Cleaning

Cleaning of Video Head

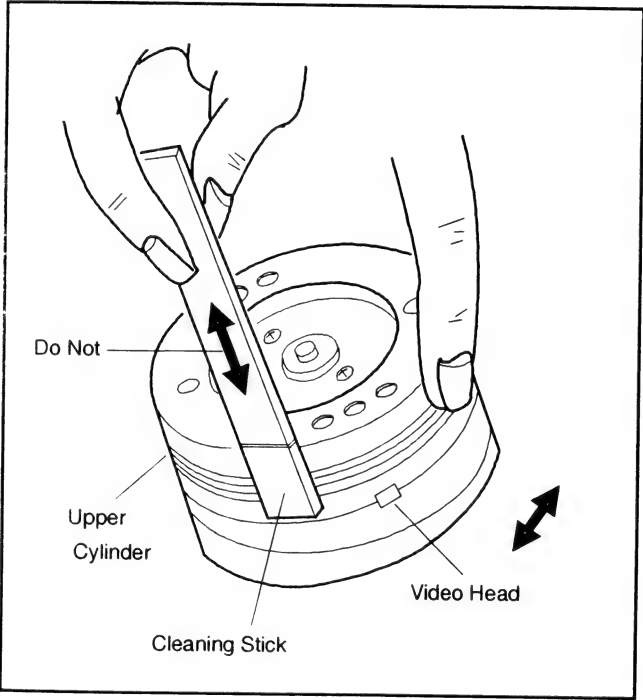
Clean the head with a head cleaning stick or chamois skin.

Procedure

- 1. Remove the top cabinet.
- 2. Put on a glove (thin type) to avoid touching the upper and lower drum with your bare hand.
- 3. Put a few drops of 90% Isopropyl alcohol on the head cleaning stick or on the chamois skin and, by slightly pressing it against the head tip, turn the upper drum to the right and to the left.

Notes:

- 1. The video head surface is made of very hard material, but since it is very thin, avoid cleaning it vertically.
- 2. Wait for the cleaned part to dry thoroughly before operating the unit.
- 3. Do not reuse a stained head cleaning stick or a stained chamois skin.



Cleaning of Audio Control Head

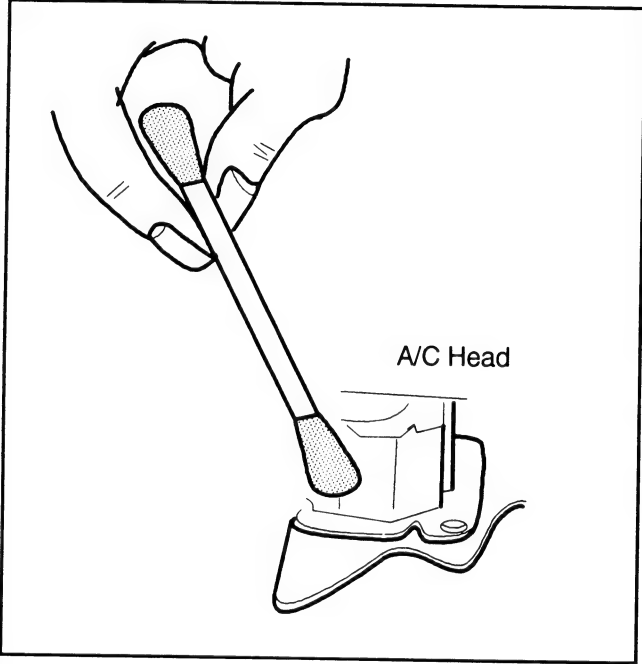
Clean the head with a cotton swab.

Procedure

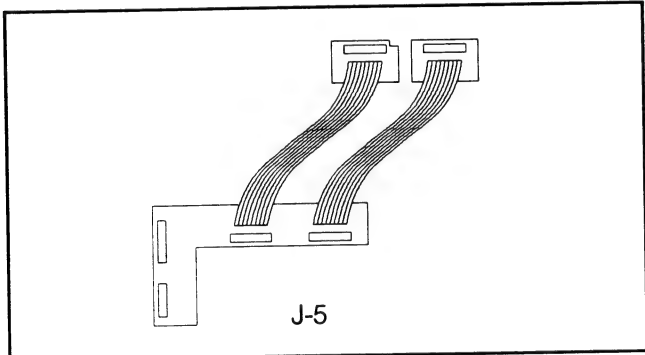
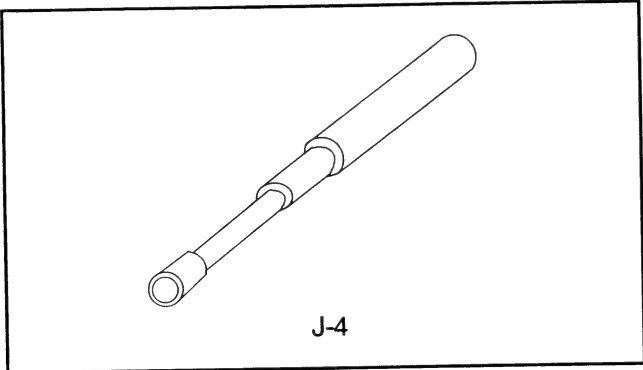
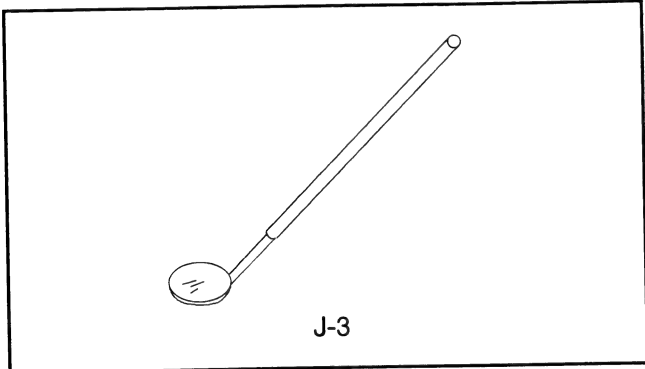
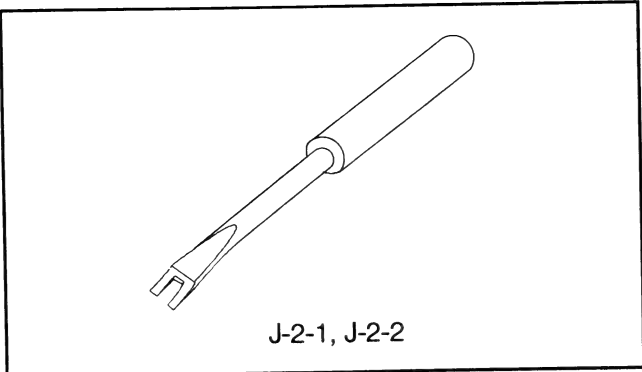
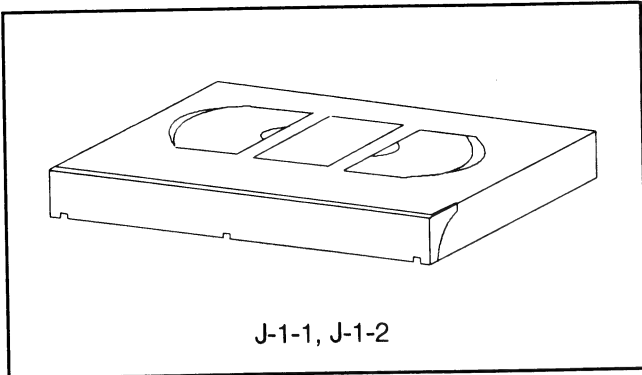
- 1. Remove the top cabinet.
- 2. Dip the cotton swab in 90% isopropyl alcohol and clean the audio control head. Be careful not to damage the upper drum and other tape running parts.

Notes:

- 1. Avoid cleaning the audio control head vertically.
- 2. Wait for the cleaned part to dry thoroughly before operating the unit or damage may occur.



SERVICE FIXTURES AND TOOLS



| Ref. No. | Name                  | Part No. | Adjustment                                                                             |
|----------|-----------------------|----------|----------------------------------------------------------------------------------------|
| J-1-1    | Alignment Tape        | F6-A     | Head Adjustment of Audio Control Head                                                  |
| J-1-2    | Alignment Tape        | F6-N     | Azimuth and X Value Adjustment of Audio Control Head / Adjustment of Envelope Waveform |
| J-2-1    | Special Driver, Large | FSJ-0001 | X Value                                                                                |
| J-2-2    | Special Driver, Small | FSJ-0006 | Guide Roller                                                                           |
| J-3      | Mirror                | FSJ-0004 | Tape Transportation Check                                                              |
| J-4      | Box Driver, Mx3       | FSJ-0005 | A/C Head Height                                                                        |
| J-5      | Deck Extention Cable  | N1091XA  | All Mechanical and Electrical Adjustments                                              |

Note:

Before starting any adjustment, take the Deck Assembly out of the cabinet and use J-5 to connect the Deck Assembly with the Main CBA.

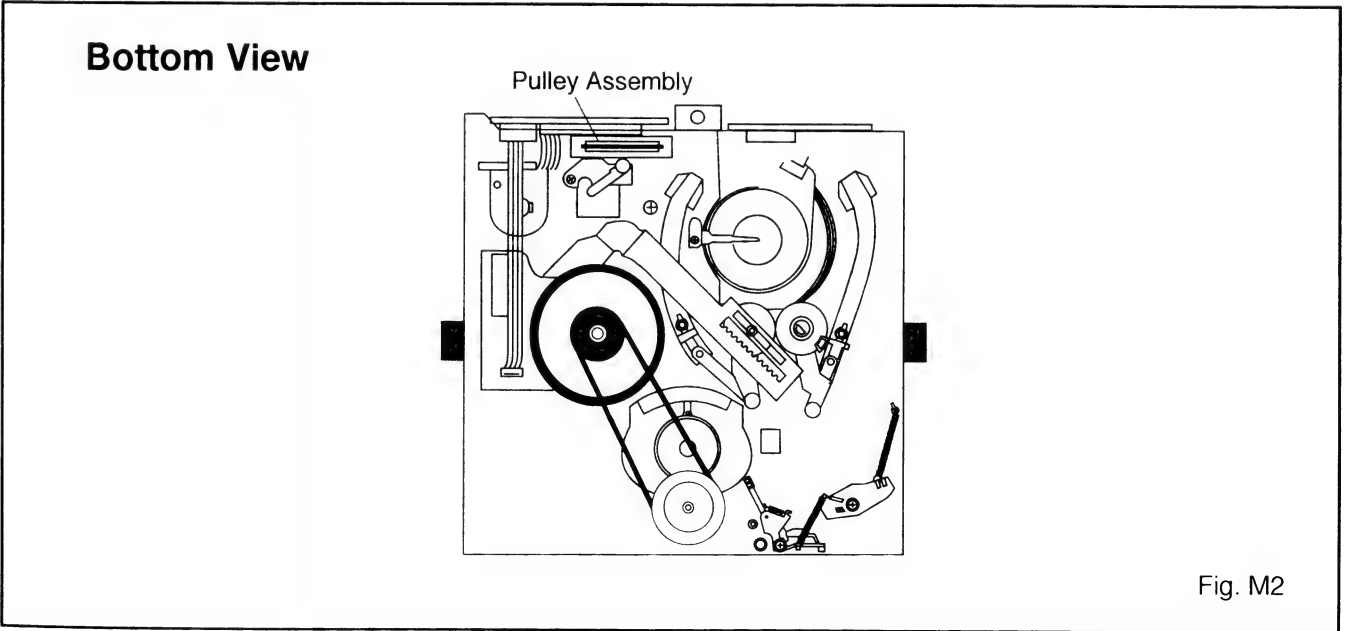
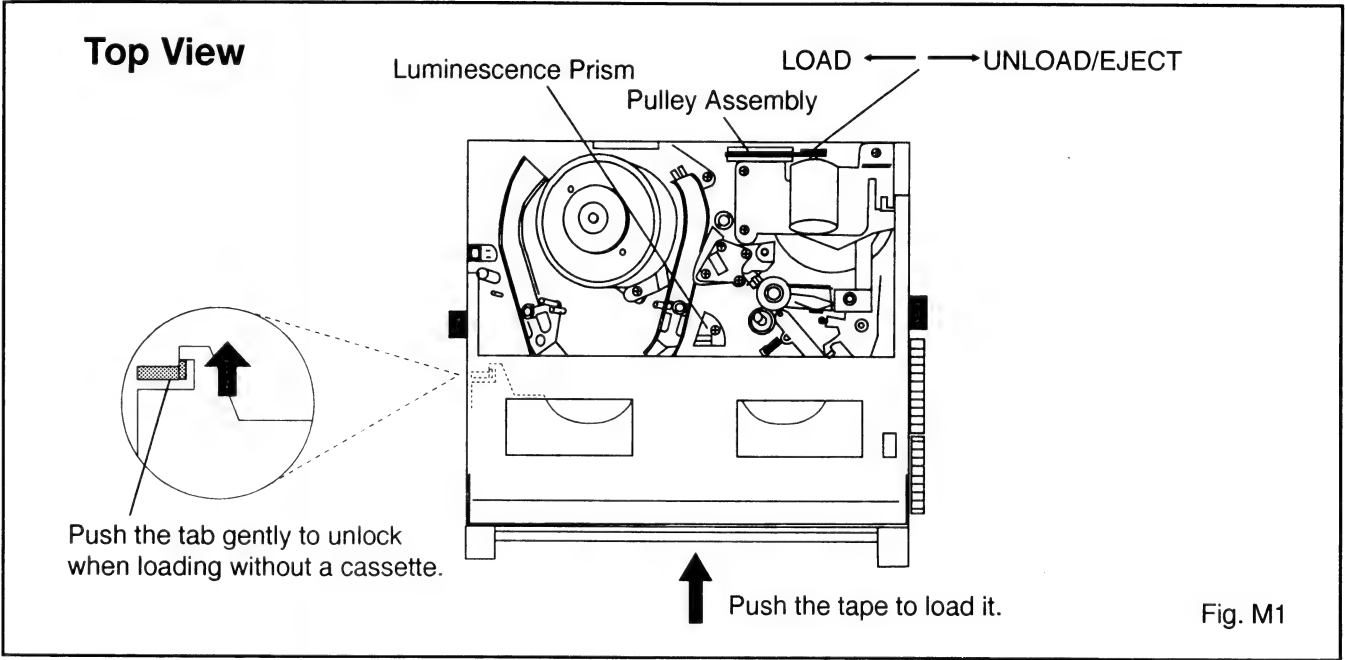
MECHANICAL ALIGNMENT PROCEDURES

Service Information

- A. Method for Manual Tape Loading/Unloading of VCR.
- To place the Cassette Holder in the down position, turn the Pulley Assembly clockwise as viewed from the back of the Deck. To place the Cassette Holder in the up position, turn the Pulley Assembly counter-clockwise as viewed from the back of the Deck.
- B. How to place the Cassette Holder in the down position without a cassette tape.

METHOD

1. Disconnect the AC Plug and remove the Top Cover.
2. Turn the Pulley Assembly clockwise as viewed from the back of the Deck.



# 1. Tape Interchangeability Alignment (Final Alignment)

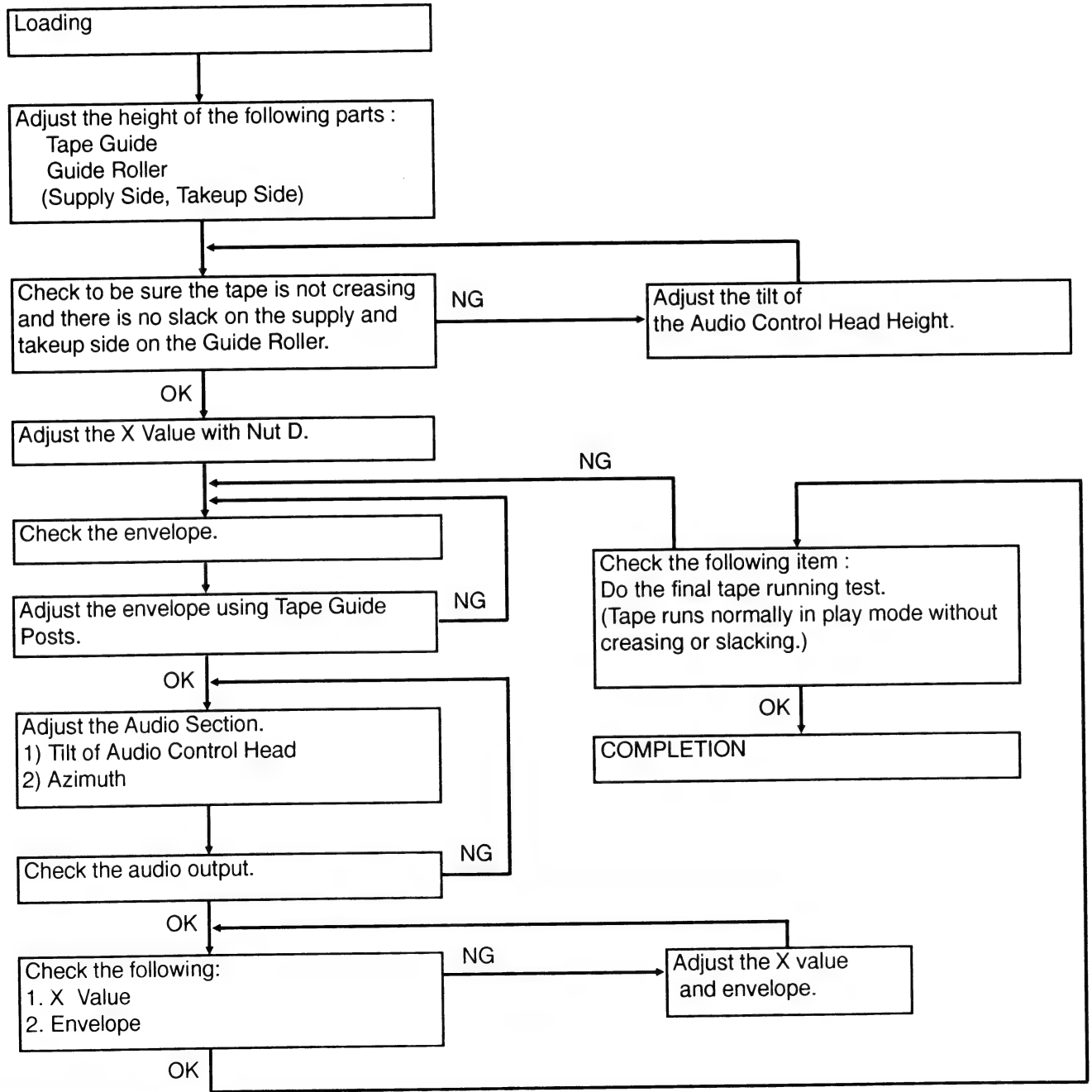
**Note:** To do these alignment procedures, be sure that the Tracking Control Circuit is set to the Neutral mode.

## Equipment required :

- Dual Trace Oscilloscope
- VHS Alignment Tape (F6-A, F6-N)
- Post Alignment Screwdriver
- X-Position Alignment Fixture
- Screwdriver (For the Tape Guide Rollers)
- Box Driver M3

**Note:** After this Mechanical Alignment is completed, secure screw [C] shown in Fig.M6 with lock paint and do all Electrical Adjustment procedures.

Tape Running Alignment Flowchart



## 1-A. Preliminary Checking and Alignment of Tape Running

### Purpose:

To make sure that the tape running is well stabilized.

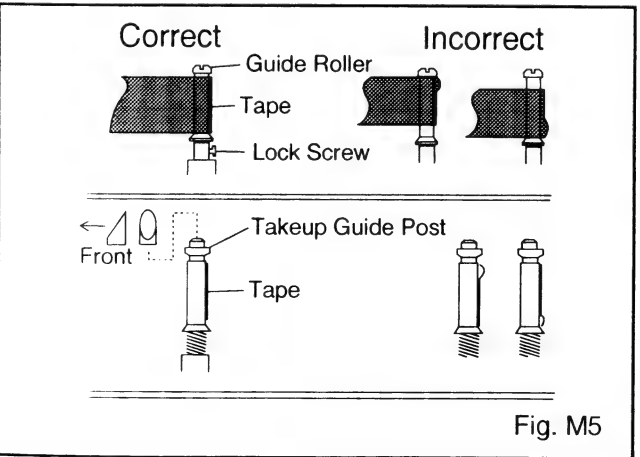
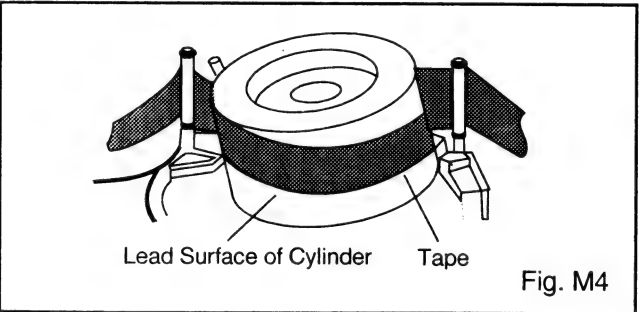
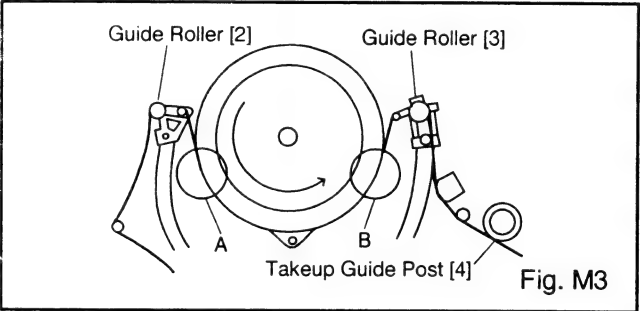
### Symptom of Misalignment:

If the tape runs unstable, the tape will be damaged.

1. Play back a cassette tape and check to see that the tape runs without creasing at Guide Rollers [2] and [3], and at points A and B on the lead surface. (Refer to Fig M3 and M4)
2. If creasing is apparent, align the height of the guide rollers by turning the top of Guide Rollers [2] and [3] with a Post Adjustment Screwdriver. (Refer to Fig. M3 and M5)

**Note:** Before turning the Guide Rollers, loosen the Lock Screw using a lock screwdriver.

**Note:** Do not use an Alignment Tape for this procedure. If the unit is not correctly aligned, the tape may be damaged.



## 1-B. Preliminary Checking of Audio/Control Head Height

### Purpose :

To make sure that the tape runs properly along the Control Head.

### Symptom of Misalignment:

If the control signal is not properly picked up, proper Servo Operation cannot be achieved.

The head height adjustment is required when the Audio/Control Head is replaced.

For final alignment, do the adjustments described in 1-C and 1-D.

**Note:** Play back a cassette tape. Looking at the lower edge of the Control Head with the tape in motion, make sure that the lower edge of the tape runs 0.15~0.25mm above the lower edge of the Control Head. If it does not run properly, turn Height Adjustment Nut [A] slightly in either direction as necessary to correct it. Turn clockwise, as viewed from the top, to lower the head and counterclockwise to raise it. (Refer to Fig. M6 and M7.)

## 1-C. Preliminary Checking of Tilt of Audio/Control Head

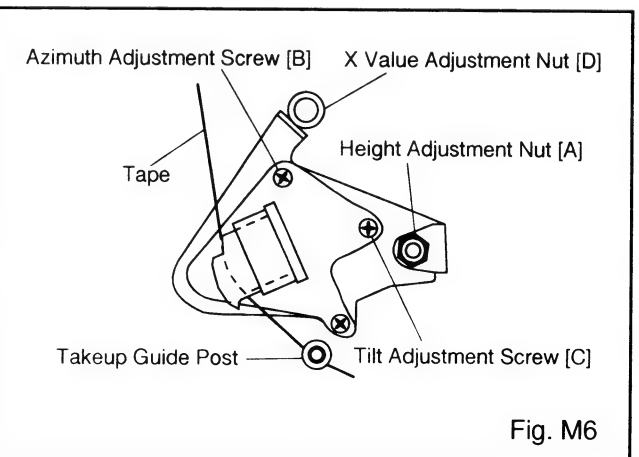
### Purpose:

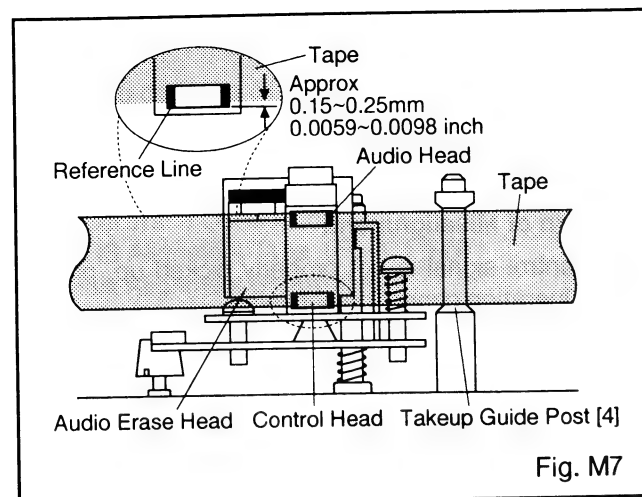
To confirm that the tape running is well stabilized, confirm that the signals on the tape are properly picked up by the Audio Head at the upper part and by the Control Head at the lower part.

### Symptom of Misalignment:

If the tilt of the Audio/Control Head is poorly aligned, the tape will eventually be damaged.

Play back a cassette tape and confirm that there is no tape slack between Takeup Guide Post [4] in Fig. M3 and the Audio/Control Head. If there is any slack, align the Audio/Control Head by turning tilt adjustment screw [C] in Fig. M6 so that the tape has no slack.





### 1-D. Final Alignment of Audio/Control Head Height

#### Purpose:

To align the position and height of the Audio/Control Head so that it meets the tape tracks properly.

#### Symptom of Misalignment:

If the position of the Audio/Control Head is not properly aligned, the Audio S/N Ratio or Frequency Response will be poor.

1. Connect the oscilloscope to the audio output jack on the rear side of the deck.
2. Confirm that there is no tape slack between the Takeup Guide Roller and the Audio/Control Head. If there is any tape slack, remove it by turning Tilt Adjustment screw [C]. Then realign the height of the Guide Rollers (Refer to 1-A).
3. Play back the Color Bar (1kHz, Audio) on the alignment tape (F6-A) and confirm that the audio signal output level is 1kHz. Finally, adjust Height Adjustment Nut [A] so that the output level is at maximum. (Fig. M6, Fig. M8[b])
4. Adjust Azimuth Adjustment Nut [B] so that the output level on the AC Voltmeter is at maximum. (Fig. M6)

**Note:** Secure screw [C] with lock paint after realignment.

### Azimuth Alignment of Audio/Control Head

#### Purpose:

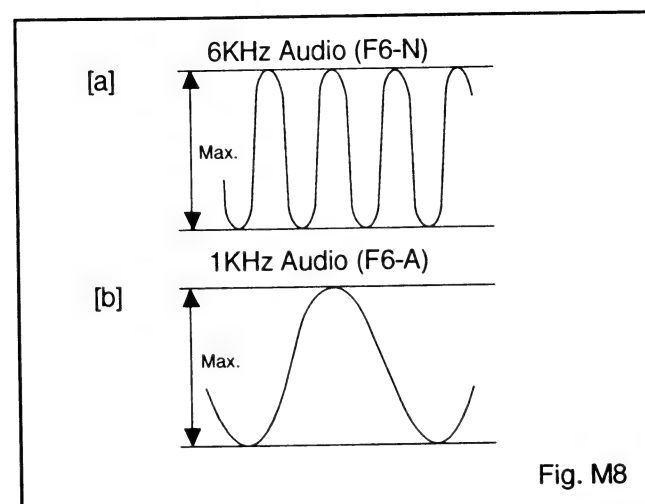
To correct the Azimuth alignment so that the Audio/Control Head angle meets tape tracks properly.

#### Symptom of Misalignment:

If the position of the Audio/Control Head is not properly aligned, the Audio S/N Ratio or Frequency Response will be poor.

1. Connect the oscilloscope to the audio output jack on the rear side of the deck.

2. Play back the Gray Scale (6kHz, audio) on the alignment tape (F6-N), and adjust Height Adjustment Nut [A] so that the output level on the AC Voltmeter or the waveform of the oscilloscope is at maximum. (Fig. M6, Fig. M8[a])



### 1-E. X Value Alignment

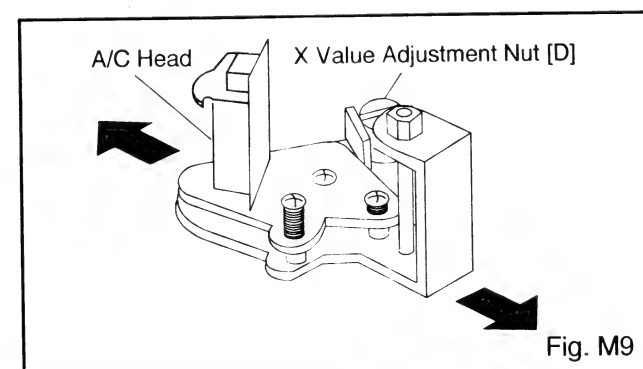
#### Purpose:

To align the Horizontal Position of the Audio/Control Head.

#### Symptom of Misalignment:

If the Horizontal Position of the Audio/Control Head is not properly aligned, maximum envelope cannot be obtained at the Neutral mode of the Tracking Control Circuit.

1. Set the Tracking Control Circuit to the Neutral mode by pressing CH UP and DOWN buttons on VCR simultaneously.
2. Connect the oscilloscope to TP of C-PB on the Main CBA. Use TP of RF-SW as a trigger.
3. Play back the Gray Scale of the Alignment Tape (F6-N) and confirm that the PB FM signal is present.
4. Adjust X Value adjustment Nut [D] with the X Position Adj-Fixture so that the PB FM signal at the TP of C-PB or at the TP of A-OUT is maximum. (Fig. M9)



### 1-F. Final Checking/Adjustment of Envelope Waveform

#### Purpose:

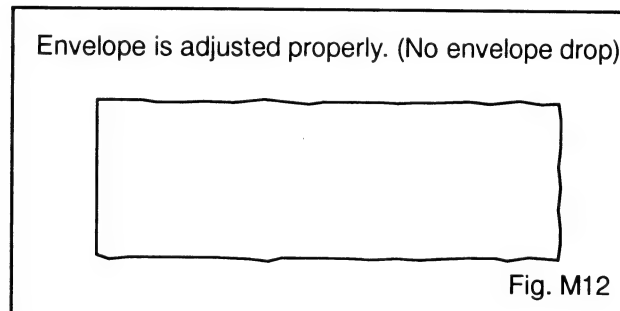
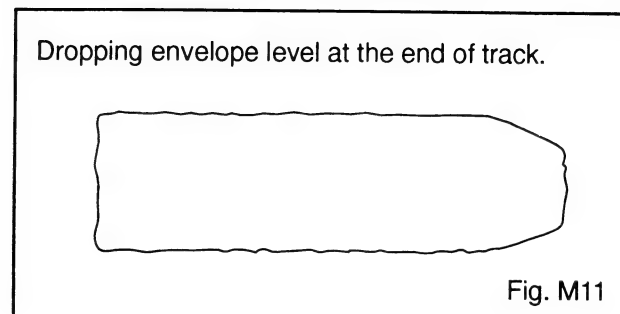
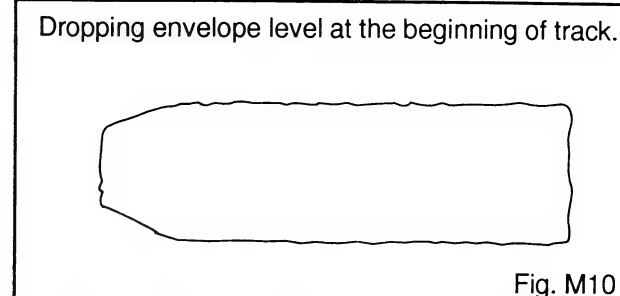
To achieve a satisfactory picture and precise tracking.

#### Symptom of Misalignment:

If the envelope output is poor, noise will appear in the picture. The tracking will then lose precision and the playback picture will be distorted by any slight variation of the Tracking Control.

1. Set the Tracking Control Circuit to the Neutral mode by pressing both CH UP and DOWN buttons on VCR simultaneously.
2. Connect the oscilloscope to TP of C-PB on the Main CBA. Use TP of RF-SW as a trigger.
3. Play back the Gray Scale on the Alignment Tape (F6-N). Adjust the height of Guide Rollers [2] and [3] (Fig. M3) watching the oscilloscope display so that the envelope becomes as flat as possible. If adjustment is required, turn the top of the Guide Roller with the Post Adjustment Screwdriver.
4. When the envelope is as shown in Fig. M10, adjust the height of Guide Roller [2] (Refer to Fig. M3) so that the waveform looks like the one shown in Fig. M12.
5. When the envelope is as shown in Fig. M11, adjust the height of Guide Roller [3] (Refer to Fig. M3) so that the waveform looks like the one shown in Fig. M12.
6. When Guide Rollers [2] and [3] (Refer to Fig. M3) are aligned properly, there is no envelope drop either at the beginning or end of track as shown in Fig. M12.

**Note:** Upon completion of the adjustment of Guide Rollers [2] and [3] (Refer to Fig. M3), tighten the Lock Screws on these Guide Rollers [2] and [3], using a lock screw wrench. Then check the X VALUE by pushing the Tracking Control Up or Down buttons alternately, to check the symmetry of the envelope. If required, redo the "X VALUE ALIGNMENT." Secure screw [C] shown in Fig. M6 with lock paint.





DISASSEMBLY/ASSEMBLY PROCEDURES  
OF DECK MECHANISM

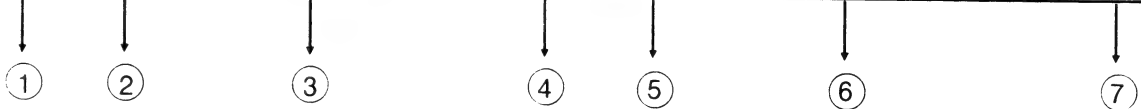
Main Mechanism

Before following the procedures described below, be sure to:

- 1. Remove the deck assembly from the cabinet.  
(Refer to CABINET DISASSEMBLY INSTRUCTIONS in Section 1.)
  - 2. Remove Front Loading Assembly from the main mechanism of the deck assembly. (See Fig. DM1.)
- All the following procedures, including those for adjustment and replacement of parts, should be done in Eject mode; see the positions of [32] and [33] in Fig. DM3 on page 2-4-4. When reassembling, follow the steps in reverse order.

| STEP /LOC. No. | START-ING No. | PART                          |     | REMOVAL             |                                                 | INSTALLATION                               |
|----------------|---------------|-------------------------------|-----|---------------------|-------------------------------------------------|--------------------------------------------|
|                |               |                               |     | Fig. No.            | REMOVE/*UNHOOK/ UNLOCK/RELEASE/ UNPLUG/DESOLDER | ADJUSTMENT CONDITION                       |
| [1]            | [1]           | Motor Holder Assembly         | T   | DM3 DM5 DM6         | 3(S-2), *(P-2) Loading Belt                     | (+) Refer to Alignment Sec. Pg. 2-4-11.    |
| [2]            | [1]           | Loading Motor Assembly        | T   | DM2 DM3 DM5         | 2(S-3), CN2902                                  |                                            |
| [3]            | [1]           | Cassette Drive Lever Assembly | T   | DM3 DM5             |                                                 | (+) Refer to Alignment Sec. Pg. 2-4-11.    |
| [4]            | [1]           | Pinch Roller Arm Assembly     | T   | DM3 DM5             | (C-1) Pinch Roller Spring                       | Refer to Alignment Sec. Pg. 2-4-11.        |
| [5]            | [1]           | Pinch Arm Assembly            | T   | DM3 DM5             |                                                 | Refer to Alignment Sec. Pg. 2-4-11.        |
| [6]            | [6]           | Mode SW CBA                   | B   | DM4 DM8             | *(L-1), Stopper Boss                            |                                            |
| [7]            | [7]           | Joint CBA                     | T/B | DM2 DM3 DM4 DM7 DM8 | (S-4), CN2801 CN2902, *CL2901 CL2902            |                                            |
| [8]            | [1]           | Cam                           | T   | DM3 DM5             |                                                 | (+) Refer to Alignment Sec. Pg. 2-4-11.    |
| [9]            | [1]           | Pulley Assembly               | T   | DM3 DM6             | (W-1), Loading Belt                             | (+)                                        |
| [10]           | [10]          | Head Amp CBA                  | T/B | DM2 DM3 DM4 DM8     | (S-5), (S-6), CN02, CN03, CL02                  |                                            |
| [11]           | [11]          | Arm Idler Assembly            | T   | DM3 DM9             | Clutch Bushing                                  | (+)                                        |
| [12]           | [12]          | Clutch Assembly               | B   | DM4 DM9             | (C-2), (W-2) Capstan Belt                       |                                            |
| [13]           | [9]           | Capstan Motor Unit            | B   | DM4 DM10            | 3(S-7)                                          |                                            |
| [14]           | [1]           | M Lever Holder                | T   | DM3 DM11            | (S-8)                                           |                                            |
| [15]           | [1]           | Kick Arm Holder               | B   | DM4 DM11            | Kick Arm Spring                                 |                                            |
| [16]           | [15]          | Kick Arm                      | B   | DM4 DM11            | Bushing                                         |                                            |
| [17]           | [17]          | Mode Change Lever             | T   | DM3 DM12            | *2(L-2)                                         | (+)                                        |
| [18]           | [1]           | Main Lever Assembly           | T   | DM3 DM15            | *(L-3)                                          |                                            |
| [19]           | [19]          | Tape Guide Assembly           | T   | DM3 DM15            | *(P-3), *(L-4)                                  | Keep the distance specified in Fig. DM15.  |
| [20]           | [20]          | ACE Head Assembly             | T   | DM3 DM14            | Nylon Nut Head Height Adjustment Spring         | Keep the distances specified in Fig. DM14. |

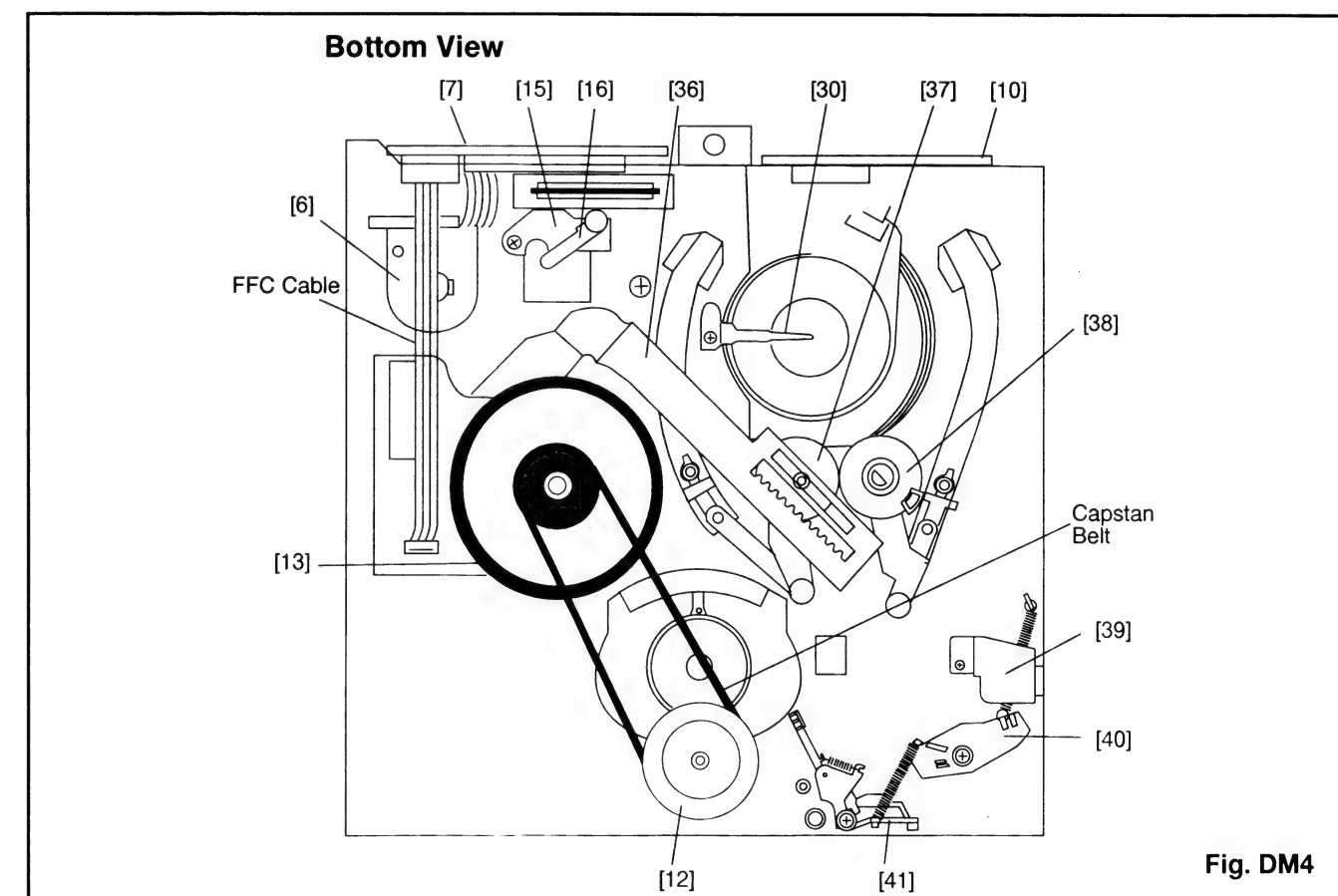
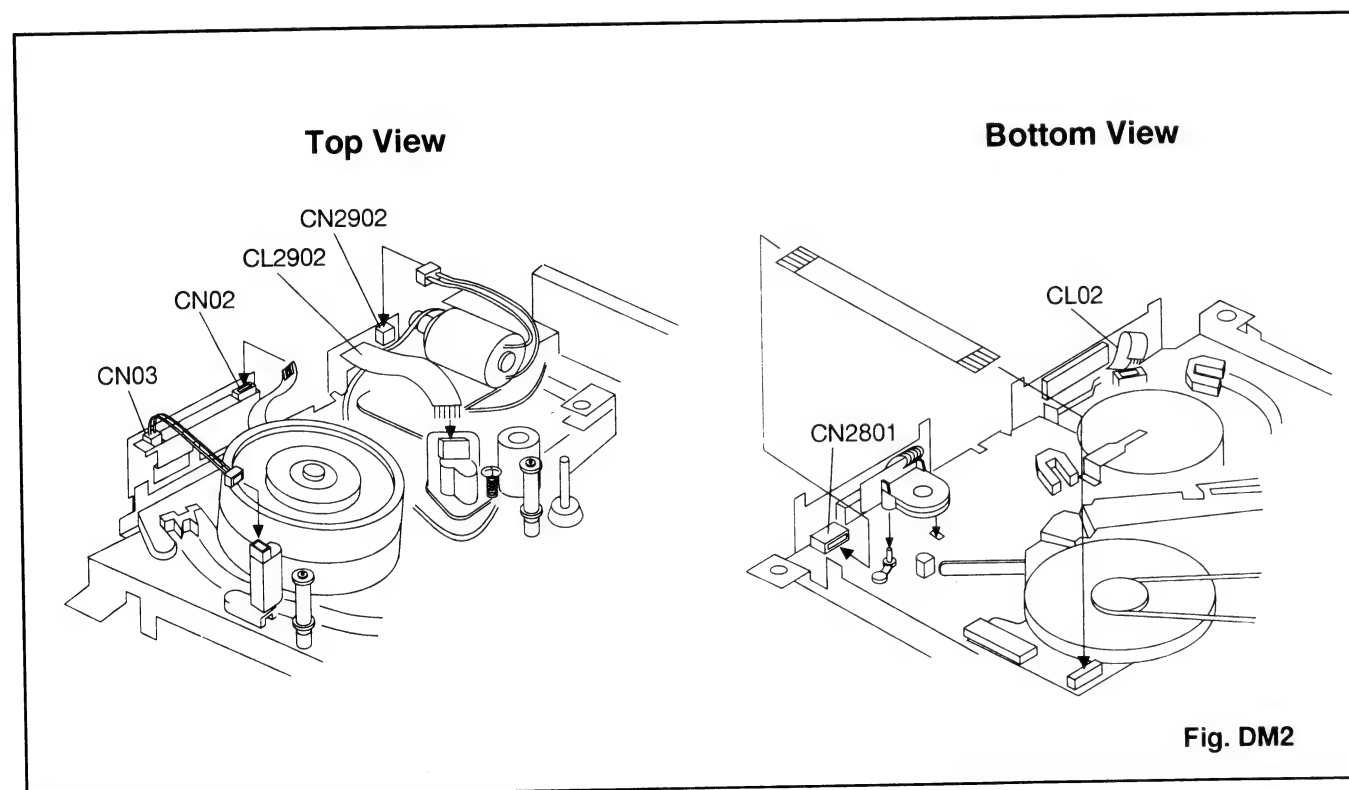
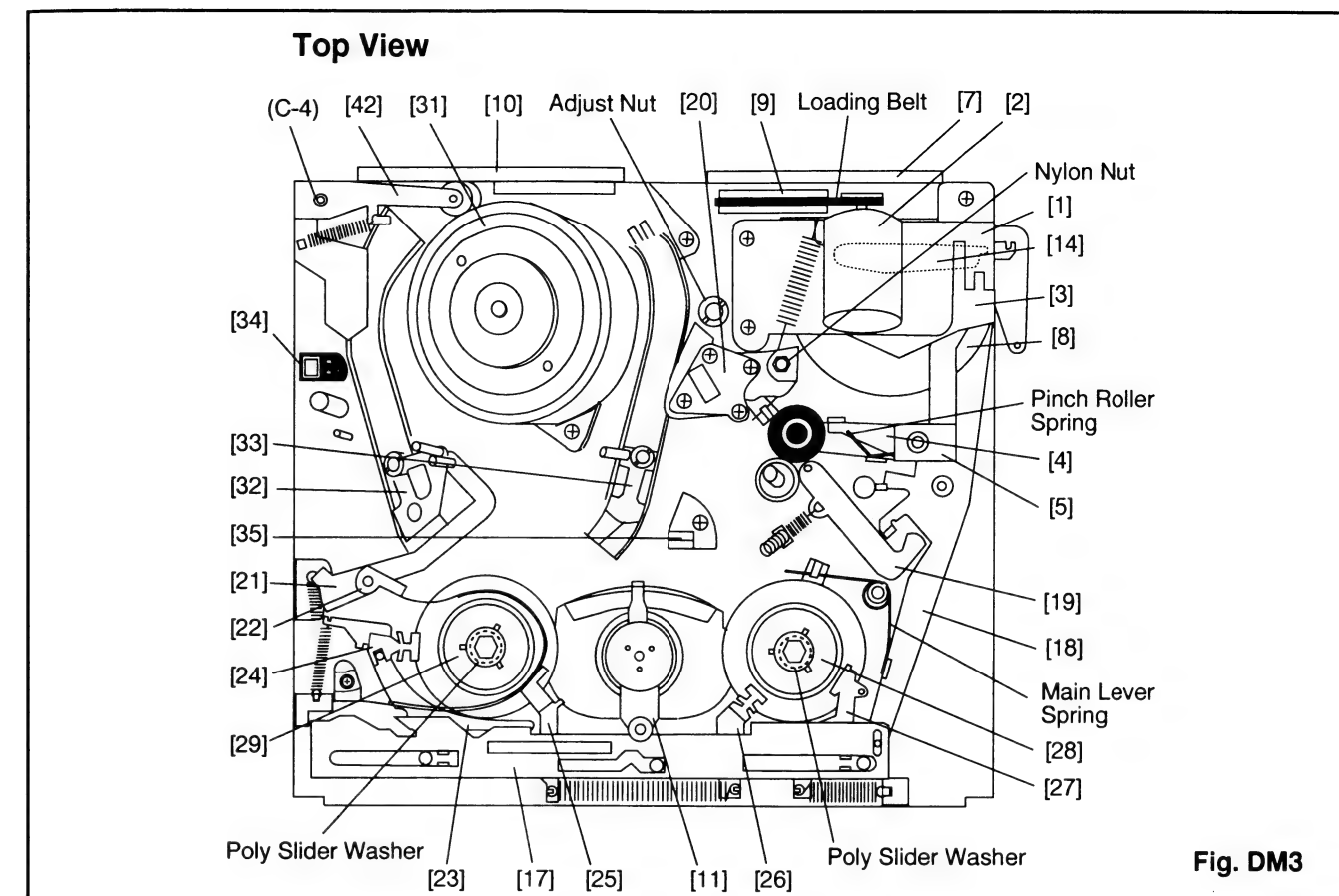
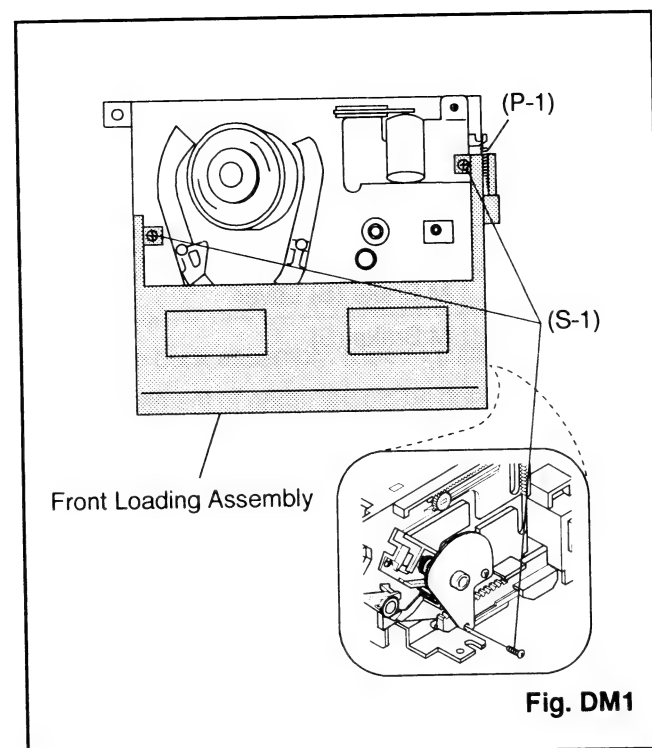
| STEP /LOC. No. | START-ING No.  | PART                       |     | Fig. No.      | REMOVAL                                         | INSTALLATION                                                                      |
|----------------|----------------|----------------------------|-----|---------------|-------------------------------------------------|-----------------------------------------------------------------------------------|
|                |                |                            |     |               | REMOVE/*UNHOOK/ UNLOCK/RELEASE/ UNPLUG/DESOLDER | ADJUSTMENT CONDITION                                                              |
| [21]           | [21]           | Tension Lever Sub Assembly | T B | DM3 DM13 DM22 | *(L-5) *(P-7)                                   |                                                                                   |
| [22]           | [21]           | Band Brake Sub Assembly    | T   | DM3 DM13      | (S-9), *(L-6)                                   |                                                                                   |
| [23]           | [17]           | M Brake (S) Lever          | T   | DM3 DM16      |                                                 |                                                                                   |
| [24]           | [17]           | M Brake (S)                | T   | DM3 DM16      | *(P-4), *(L-7)                                  | When reassembling, hook the spring (P-4) after installation of Mode Change Lever. |
| [25]           | [17]           | S Brake Arm                | T   | DM3 DM16      | *(P-5)                                          | When reassembling, hook the spring (P-5) after installation of Mode Change Lever. |
| [26]           | [17]           | M Brake (T) Assembly       | T   | DM3 DM16      |                                                 |                                                                                   |
| [27]           | [17]           | T Brake Arm Assembly       | T   | DM3 DM16      | *(P-6)                                          | When reassembling, hook the spring (P-6) after installation of Mode Change Lever. |
| [28]           | [17]           | Reel Base Assembly T       | T   | DM3 DM17      | Poly Slider Washer                              | (+)                                                                               |
| [29]           | [17]           | Reel Base Assembly S       | T   | DM3 DM17      | Poly Slider Washer                              | (+)                                                                               |
| [30]           | [30]           | Ground Brush Assembly      | B   | DM4 DM18 DM19 | (S-10)                                          | Refer to Alignment Sec. Pg. 2-4-11.                                               |
| [31]           | [10],[30] Only | Cylinder Assembly          | T   | DM3 DM18      | 3(S-11)                                         | Refer to Alignment Sec. Pg. 2-4-11.                                               |
| [32]           | [1]            | Moving Guide Assembly      | T   | DM3 DM20      |                                                 |                                                                                   |
| [33]           | [1]            | Moving Guide T Assembly    | T   | DM3 DM20      |                                                 |                                                                                   |
| [34]           | [34]           | FE Head                    | T   | DM3 DM20      | (S-12)                                          |                                                                                   |
| [35]           | [35]           | Main Prism                 | T   | DM3 DM20      | (S-13)                                          |                                                                                   |
| [36]           | [1]            | Loading Arm M Assembly     | B   | DM4 DM21      | (C-3)                                           | (+) Refer to Alignment Sec. Pg. 2-4-11.                                           |
| [37]           | [1]            | Loading Gear A             | B   | DM4 DM21      |                                                 | (+) Refer to Alignment Sec. Pg. 2-4-11.                                           |
| [38]           | [1]            | Loading Gear B             | B   | DM4 DM21      |                                                 | (+) Refer to Alignment Sec. Pg. 2-4-11.                                           |
| [39]           | [39]           | Spring Supporter           | B   | DM4 DM22      | (S-14)                                          |                                                                                   |
| [40]           | [39]           | BT Drive Arm               | B   | DM4 DM22      | (S-15), *(P-7), *(P-8)                          |                                                                                   |
| [41]           | [41]           | Rec Arm                    | B   | DM4 DM22      | (S-16)                                          |                                                                                   |
| *[42]          | [42]           | Cleaning Head              | T   | DM3           | (C-4)                                           |                                                                                   |





- ①: Follow steps in sequence. When reassembling, follow the steps in reverse order.  
These numbers are also used as identification (location) No. of parts in the figures.
- ②: Indicates the part to start disassembling with in order to disassemble the part in column (1).
- ③: Name of the part
- ④: Location of the part  
T=Top B=Bottom R=Right L=Left
- ⑤: Figure Number
- ⑥: Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.  
P=Spring, W=Washer, C=Cut Washer, S=Screw  
L=Locking Tab  
\*=Unhook, Unlock, Release, Unplug, or Desolder  
e.g. 2(C-2) = two Cut Washers (C-2)  
2(L-2) = two Locking Tabs (L-2)
- ⑦: Adjustment Information for Installation  
(+): Refer to Deck Exploded Views for lubrication information.

\*[42]....For Head Cleaner models only



When reassembling [1] through [5] and [8], refer to the Alignment Section, Pg. 2-4-11.

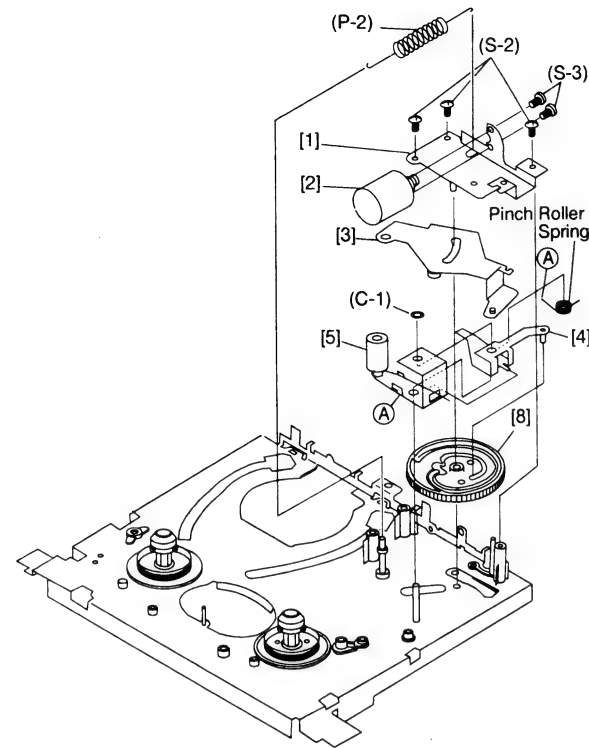


Fig. DM5

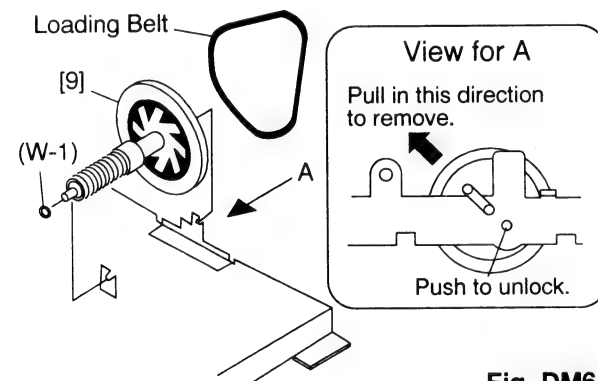


Fig. DM6

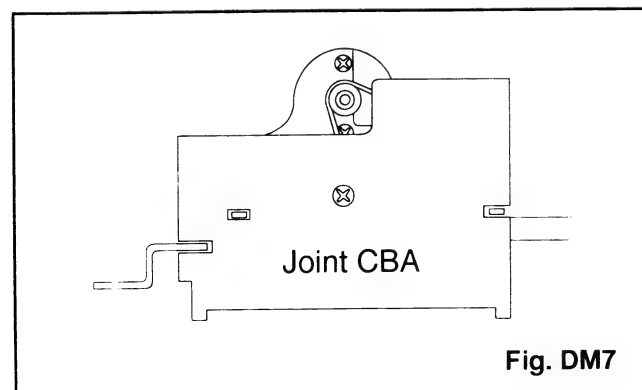


Fig. DM7

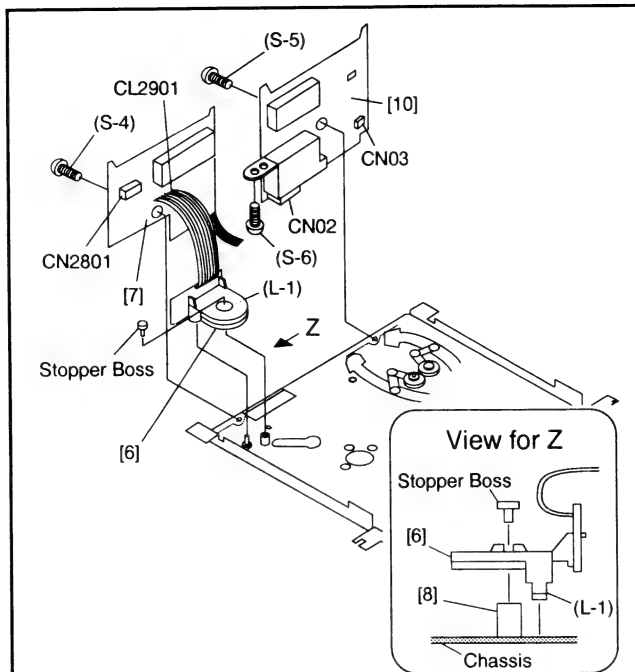


Fig. DM8

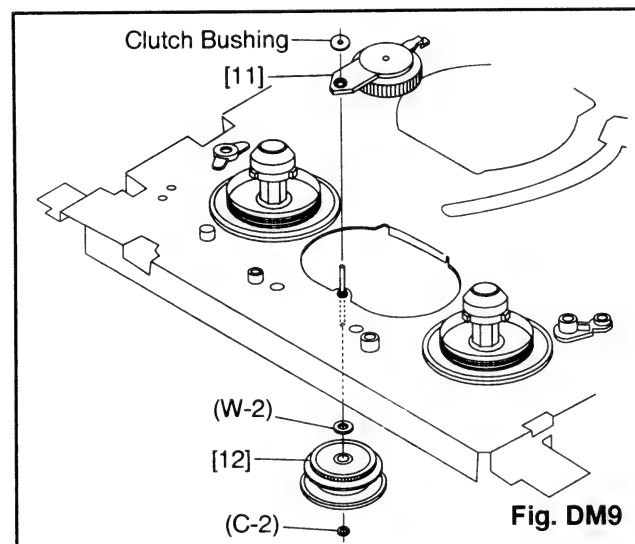


Fig. DM9

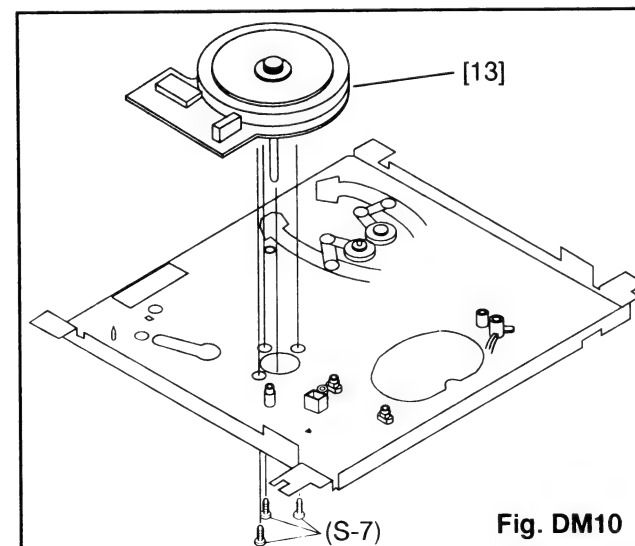


Fig. DM10

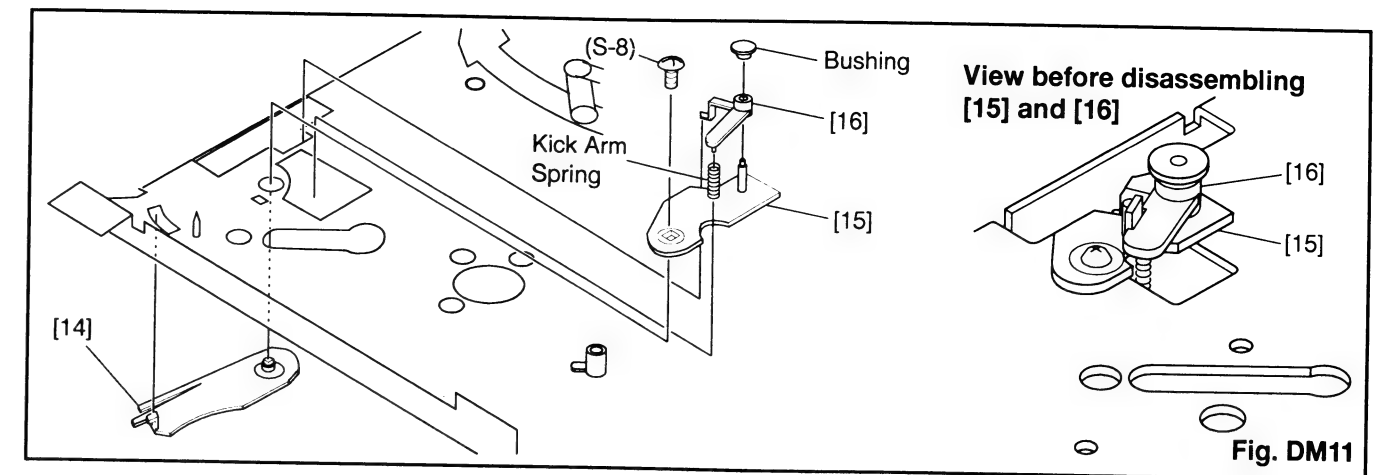


Fig. DM11

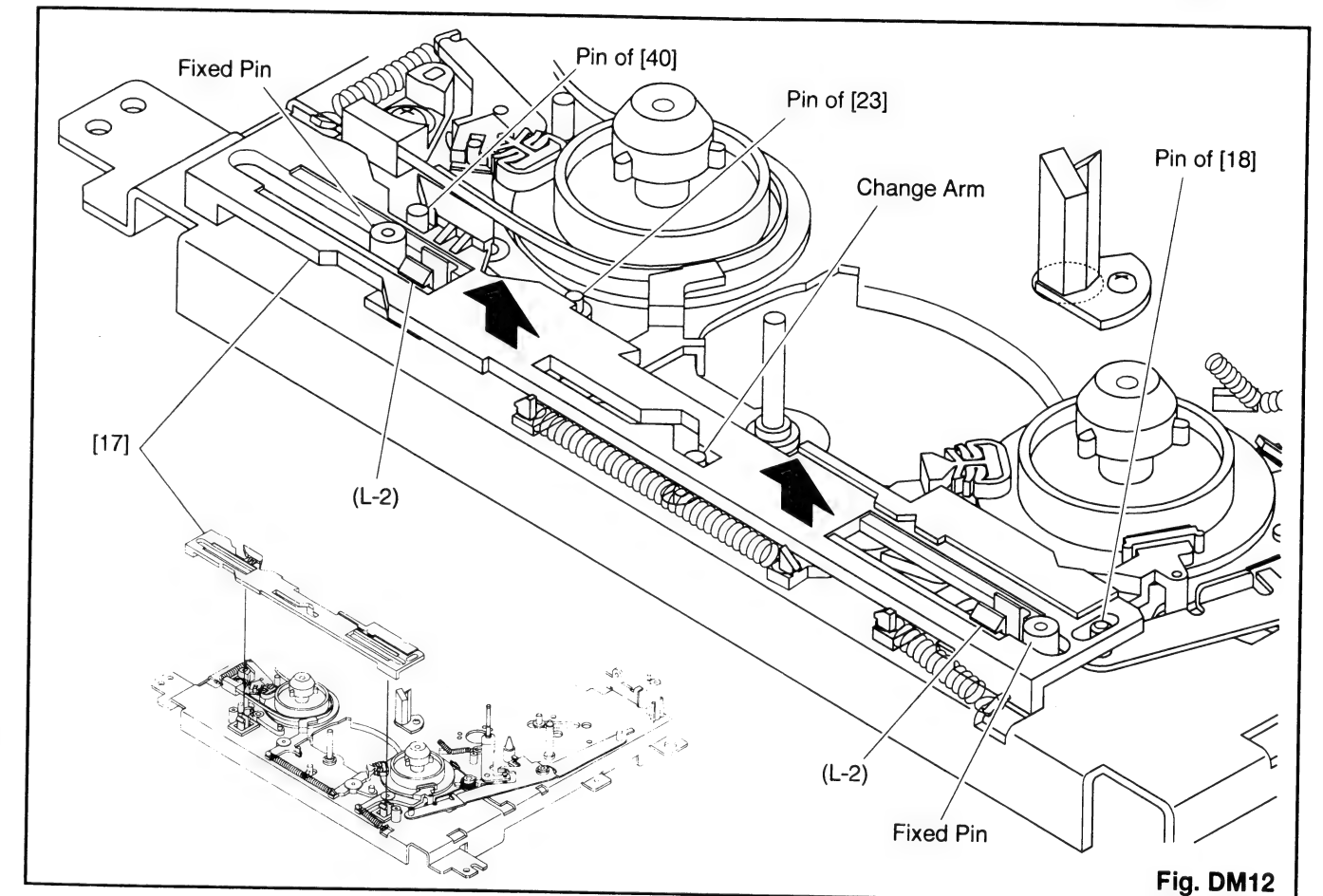


Fig. DM12

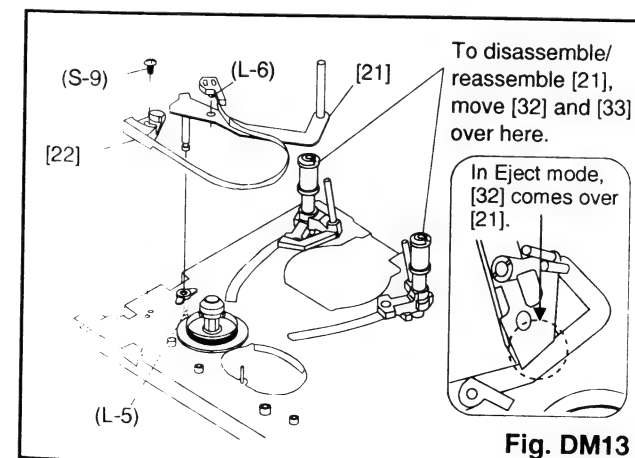


Fig. DM13

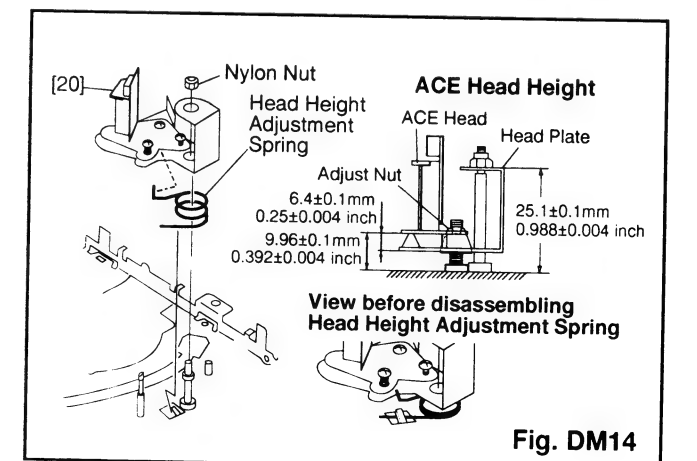
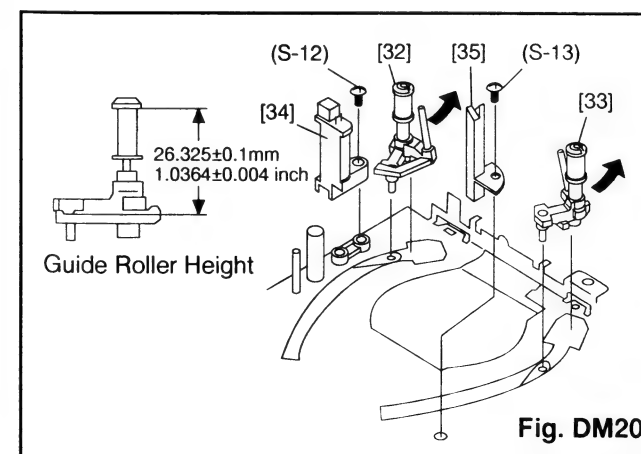
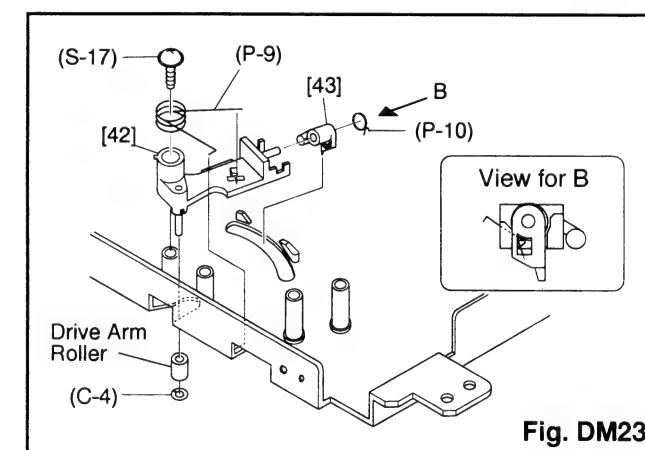
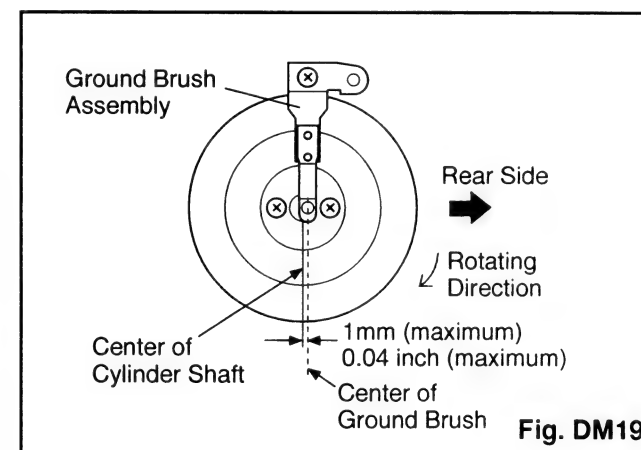
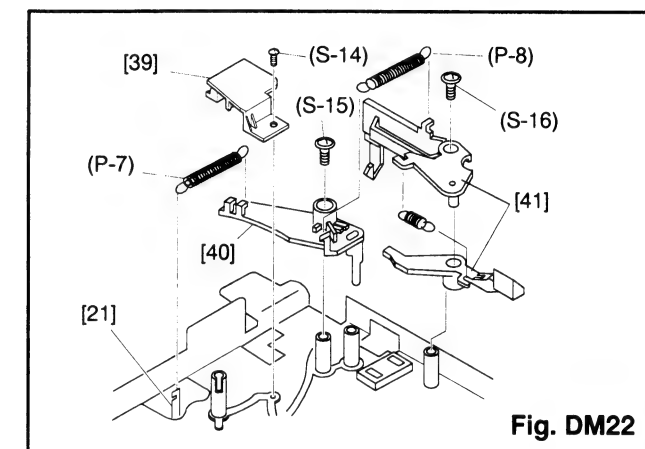
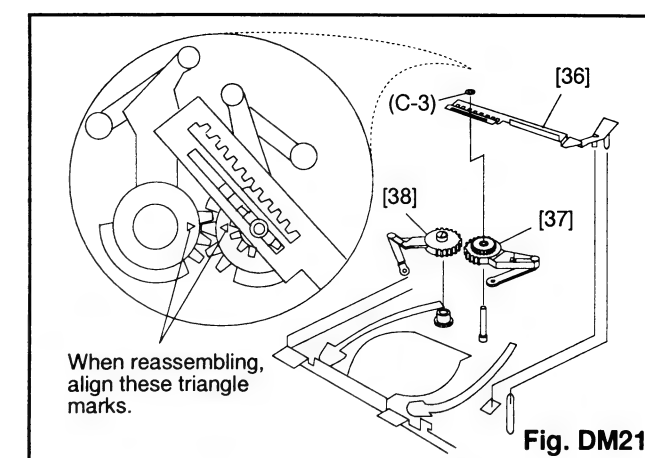
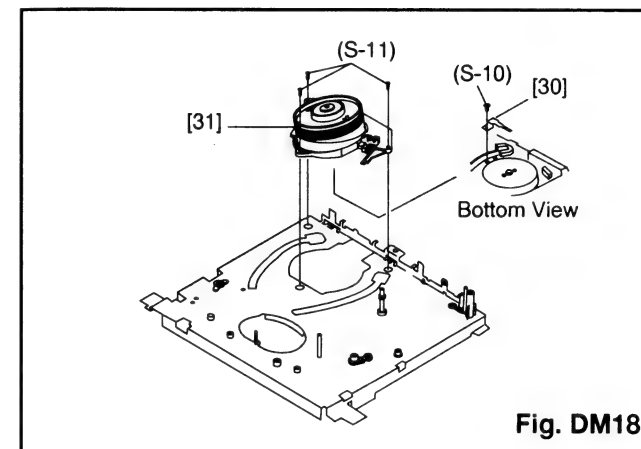
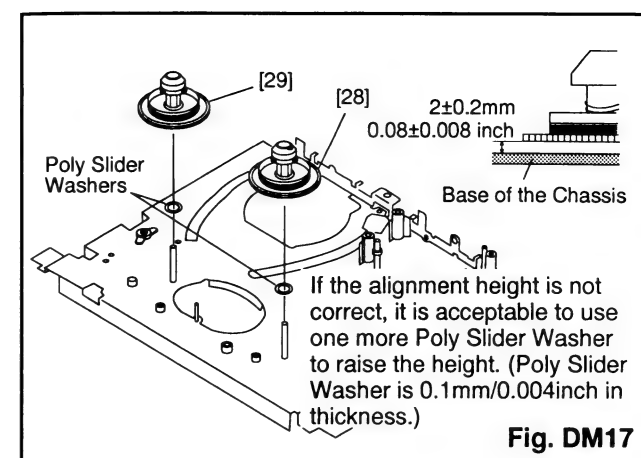
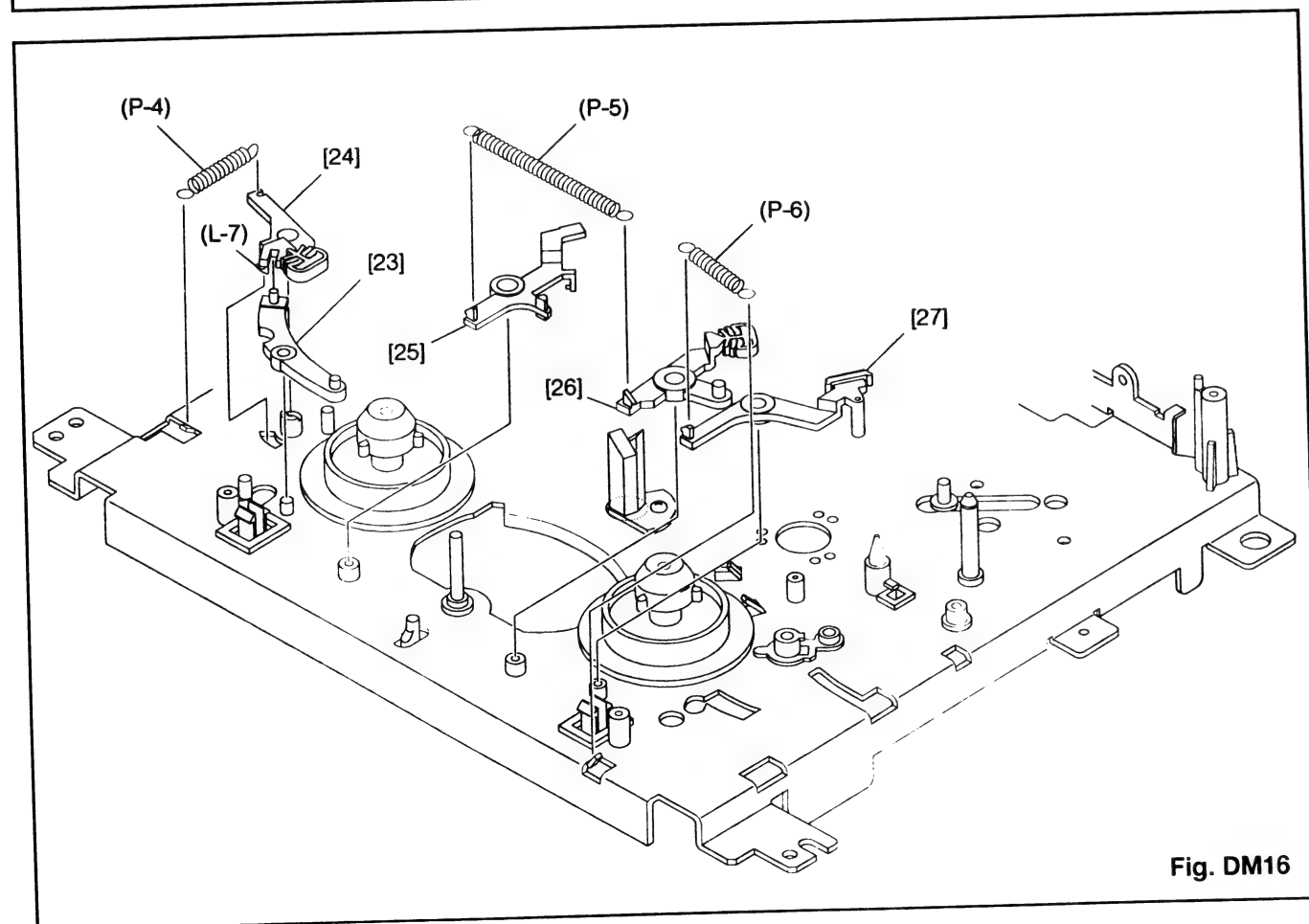
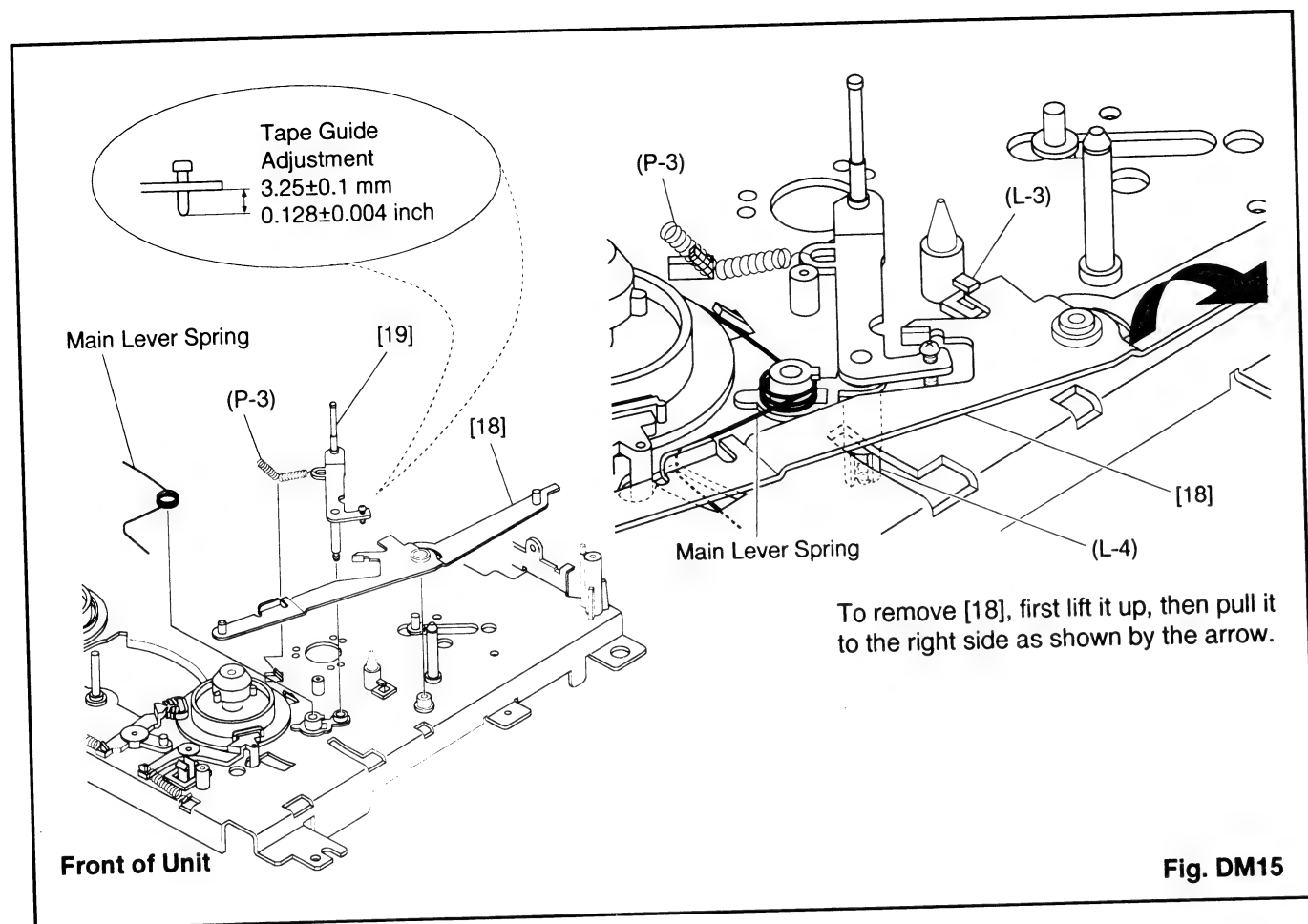


Fig. DM14



Front Loading Assembly

Before following the procedures described below, be sure to remove Front Loading Assembly from the main mechanism of the deck assembly. (See Fig. DM1.) When reassembling, start with the unit in Cassette-in mode and follow the steps in reverse order.

| STEP /LOC. No. | START-ING No. | PART                     |     | REMOVAL        |                                                 | INSTALLATION         |
|----------------|---------------|--------------------------|-----|----------------|-------------------------------------------------|----------------------|
|                |               |                          |     | Fig. No.       | REMOVE/*UNHOOK/ UNLOCK/RELEASE/ UNPLUG/DESOLDER | ADJUSTMENT CONDITION |
| [1]            | [1]           | Deck Plate               | T   | DM26           | (S-1)                                           |                      |
| [2]            | [2]           | Gear Supporter           | L   | DM26           | 3(S-2)                                          |                      |
| [3]            | [3]           | Door Opener              | R   | DM24 DM25      | *(L-1)<br>Door Opener Spring                    |                      |
| [4]            | [3]           | Drive Gear Reinforcement | R   | DM26 DM27      | (S-3)                                           |                      |
| [5]            | [3]           | Cassette Drive Gear      | R   | DM26 DM27 DM28 | Cassette Drive Gear Spring                      |                      |
| [6]            | [3]           | F Door Opener R          | R   | DM26           | *(L-2)<br>F Door Opener R Spring                |                      |
| [7]            | [3]           | Rack                     | R   | DM26 DM28      |                                                 |                      |
| [8]            | [3]           | Slider Gear (2 pieces)   | T   | DM26           | 2(C-1)                                          | (+)                  |
| [9]            | [3]           | Slider Shaft             | T   | DM26           |                                                 |                      |
| [10]           | [3]           | Cassette Holder Assembly | T   | DM26 DM27 DM29 |                                                 |                      |
| [11]           | [11]          | Mirror Holder (2 pieces) | L/R | DM26           |                                                 |                      |
| [12]           | [12]          | Release Bush (Holder)    | R   | DM26           | *2(L-3)                                         |                      |

①

②

③

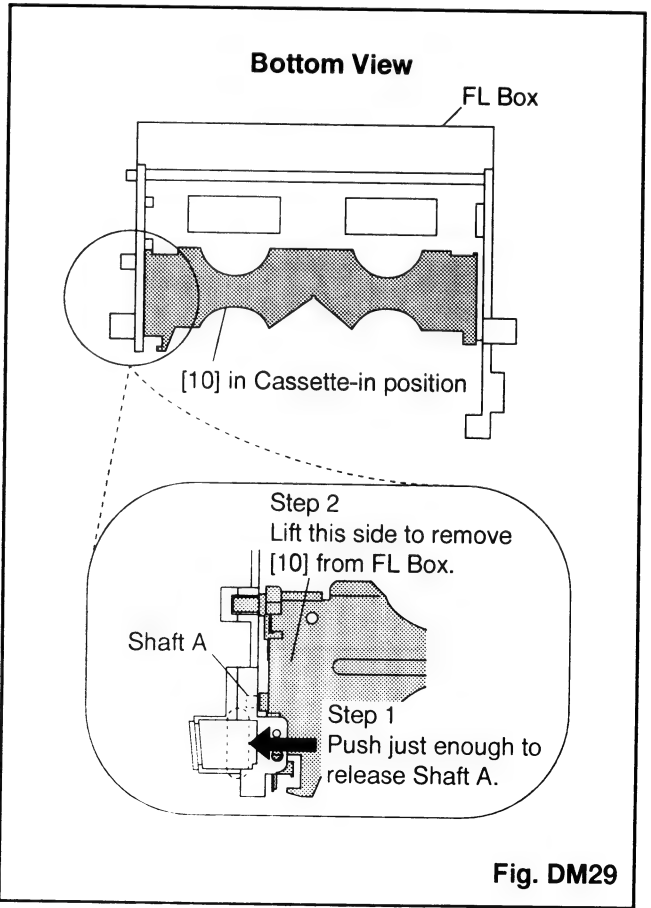
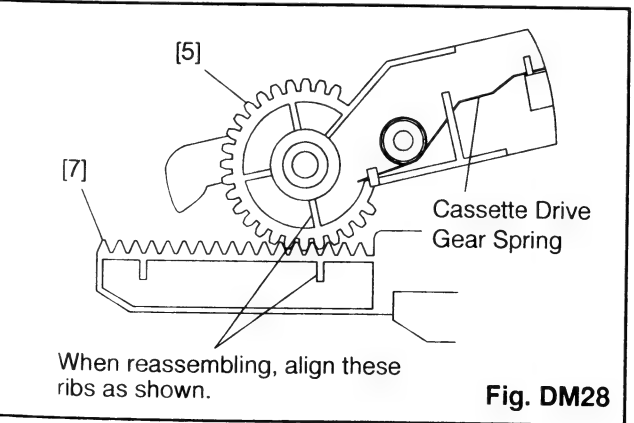
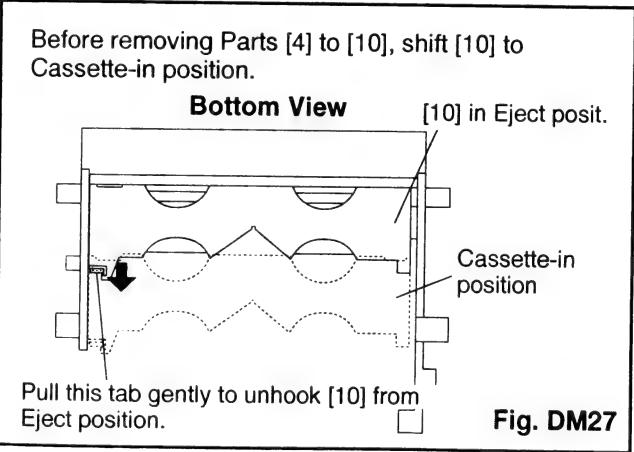
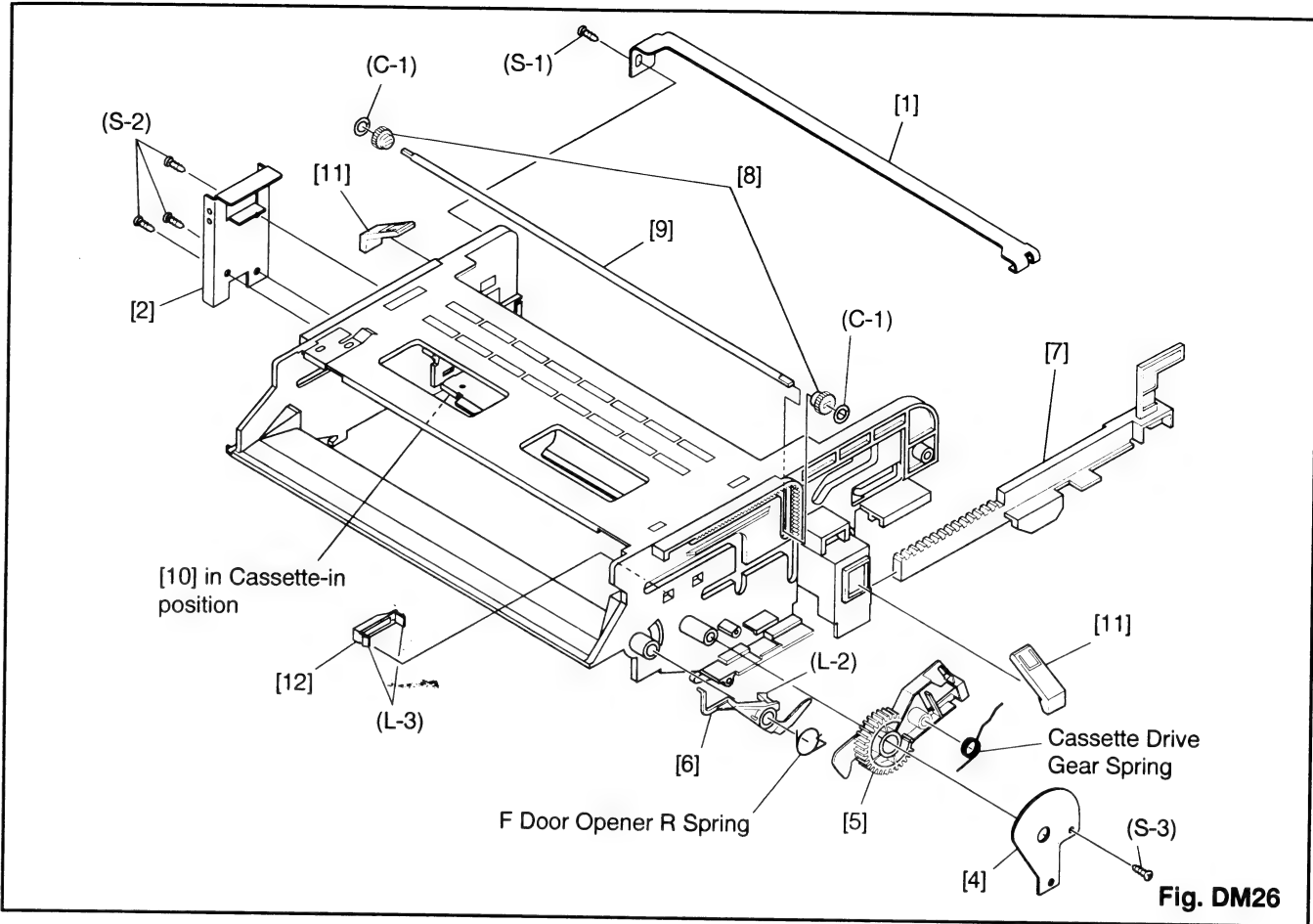
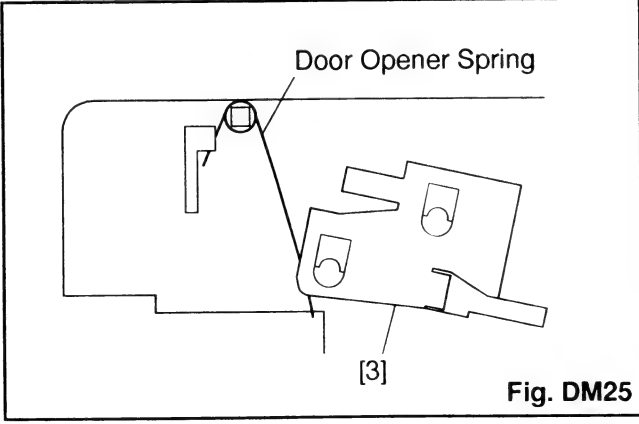
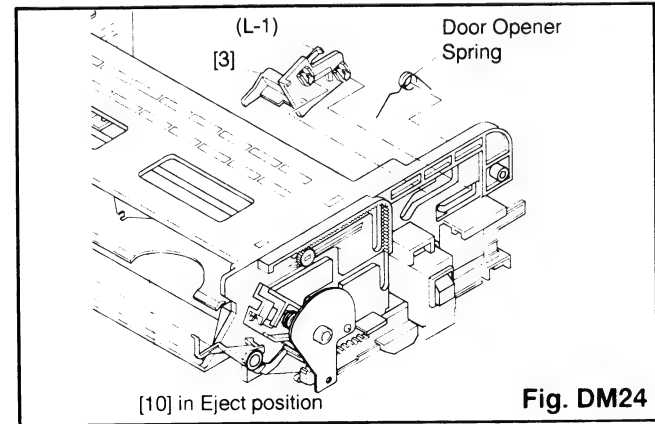
④

⑤

⑥

⑦

- ①: Follow steps in sequence. When reassembling, follow the steps in reverse order.  
These numbers are also used as identification (location) No. of parts in the figures.
- ②: Indicates the part to start disassembling with in order to disassemble the part in column 1.
- ③: Name of the part
- ④: Location of the part: T=Top B=Bottom R=Right L=Left
- ⑤: Figure Number
- ⑥: Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.  
P=Spring, W=Washer, C=Cut Washer, S=Screw, \*=Unhook, Unlock, Release, Unplug, or Desolder  
e.g. 2(C-2) = two Cut Washers (C-2), 2(L-2) = two Locking Tabs (L-2)
- ⑦: Adjustment Information for Installation (+): Refer to Deck Exploded Views for lubrication information.





# ALIGNMENT PROCEDURES OF MECHANISM

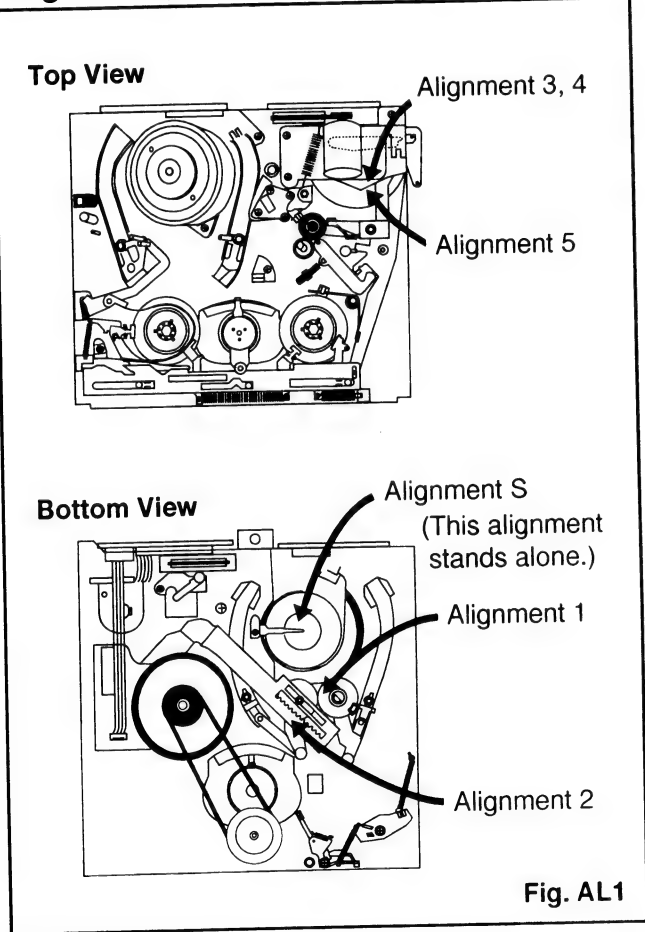
The following procedures describe how to align the individual gears and levers that make up the tape loading/unloading mechanism. Since information about the state of the mechanism is provided to the System Control Circuit only through the Mode Switch, it is essential that the correct relationship between individual gears and levers be maintained.

All alignments are to be performed with the mechanism in Eject mode, in the sequence given. Each procedure assumes that all previous procedures have been completed.

**IMPORTANT:**

If any one of these alignments is not performed properly, even if off by only one tooth, the unit will unload or stop and it may result in damage to the mechanical or electrical parts.

**Alignment points in Eject Position**



**Alignment 1**

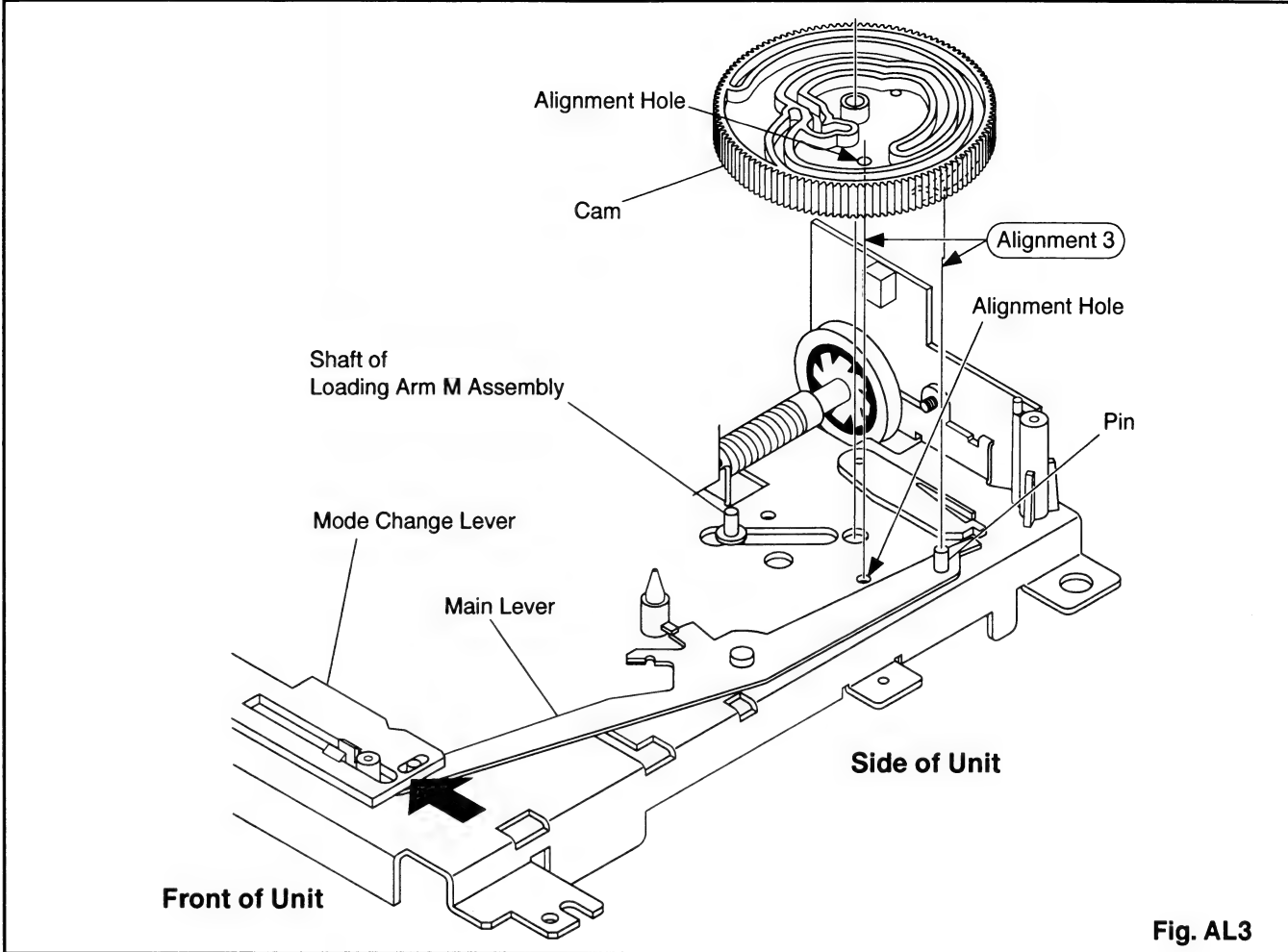
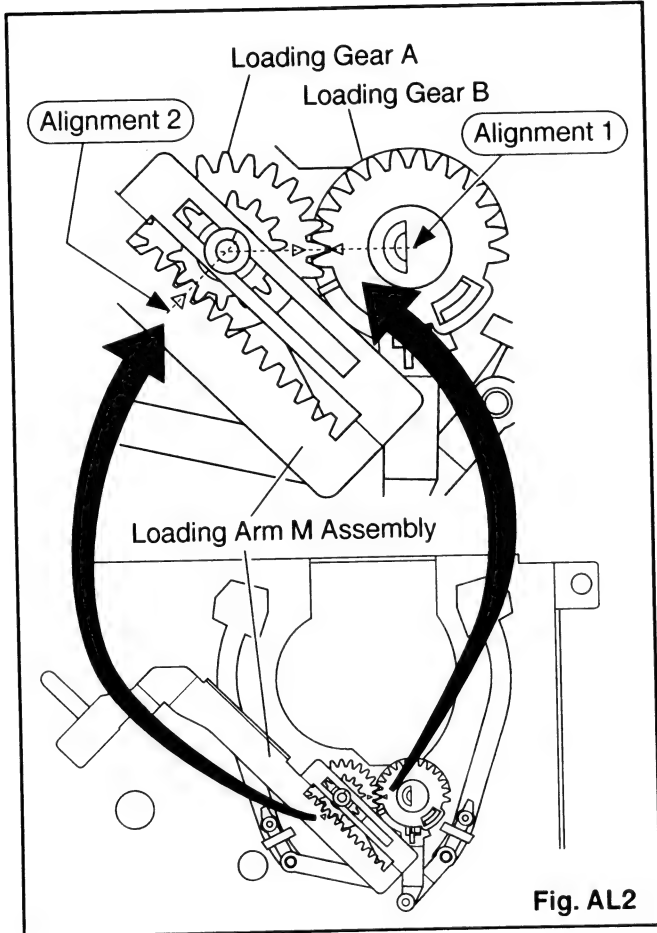
**Loading Gears, A and B**

- 1. Install Loading Gears A and B so that their triangle marks point to each other as shown in Fig. AL2.

**Alignment 2**

**Loading Arm M Assembly**

- 1. Keeping Alignment 1 correct with the two triangles pointing to each other, install Loading Arm M Assembly so that its tooth with yet another triangle mark is in the position to align with Loading Gear A and the center of the shaft. See Fig. AL2.



**Alignment 3**

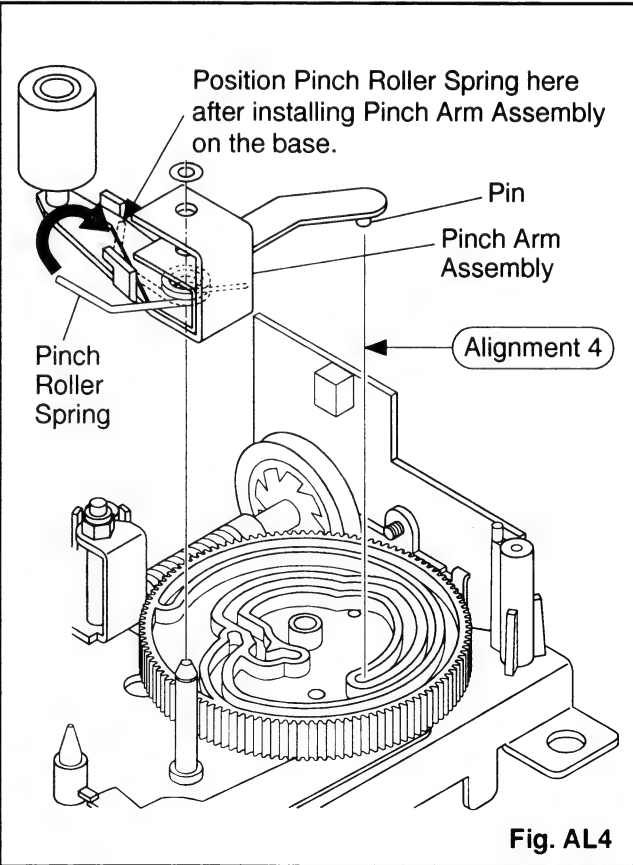
**Cam**

- 1. Make sure that the mechanism is in Eject mode so that the shaft of Loading Arm M Assembly is in the position shown in Fig. AL3.
- 2. Align the alignment hole of Cam with the alignment hole of the base, holding Cam just above the base.
- 3. Carefully keeping these two holes aligned, install Cam while pushing Mode Change Lever in the direction of the arrow. Mode Change Lever must be pushed to make the pin on Main Lever fit in the proper groove in lower Cam.
- 4. After installing Cam, make sure that the alignment hole of Cam is still aligned with the base hole and that the pin on Main Lever is inserted into the proper groove of lower Cam as specified in Fig. AL3.

**Alignment 4**

**Pinch Roller Arm Assembly**

- 1. Ensure that the pin of Pinch Roller Arm Assembly is positioned in the end of the groove of upper Cam as shown in Fig. AL4.



Alignment 5

Cassette Drive Lever Assembly

1. Ensure that the pin of Cassette Drive Lever Assembly is positioned in the groove of upper Cam as shown in Fig. AL5.

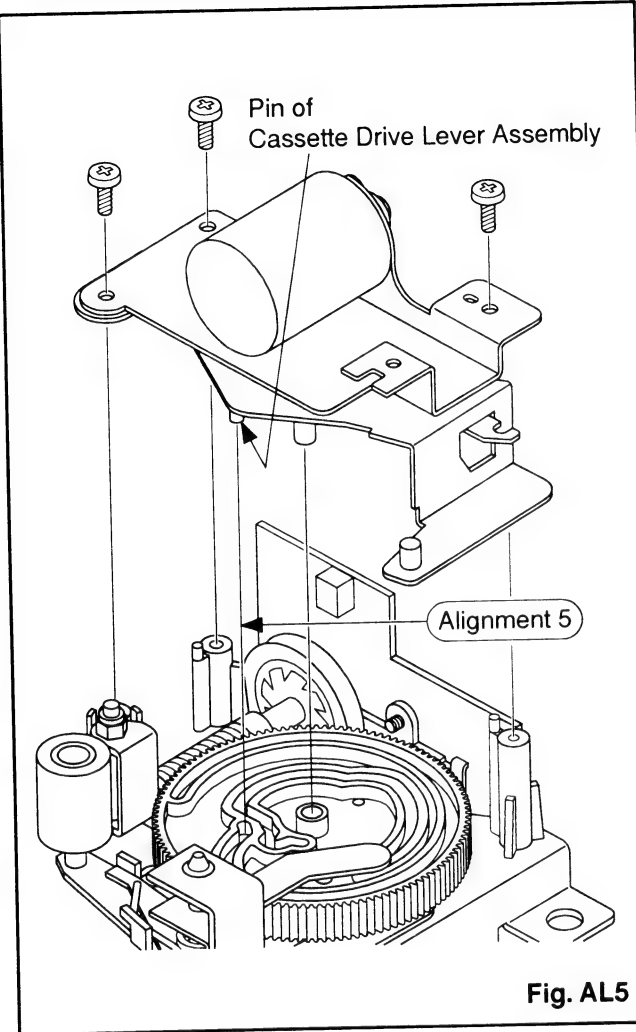


Fig. AL5

Alignment S

This alignment can be performed independently of any other alignment.

Ground Brush Assembly

1. Check to see if Ground Brush Assembly is properly set in a position equal to or just less than 1mm (0.04 inch) (but never more than 1 mm or 0.04 inch), as measured from the center of the brush to the center of the Cylinder Shaft as shown in Fig. AL6.
2. If this measurement exceeds 1mm (0.04 inch), loosen and refasten the screw of Ground Brush Assembly. If this is not enough and further adjustment is necessary, loosen and refasten the three screws of Cylinder Assembly. These three screws are shown in Fig. DM18 in DISASSEMBLY/ASSEMBLY PROCEDURES OF DECK MECHANISM.

**Note:** DO NOT install Ground Brush Assembly in the opposite position (on the left side of the center of the Cylinder shaft), but always within a maximum of 1mm (0.04 inch) to the right side of the center of this shaft.

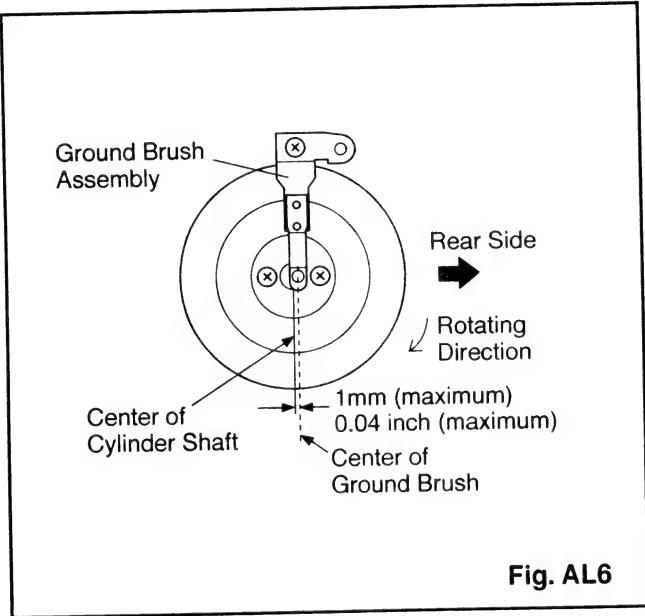


Fig. AL6

SCHEMATIC DIAGRAMS AND CBA'S

Standard Notes

WARNING

Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the mark "⚠" in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

Capacitor Temperature Markings

| Mark | Capacity change rate | Standard temperature | Temperature range |
|------|----------------------|----------------------|-------------------|
| (B)  | ±10%                 | 20°C                 | -25~+85°C         |
| (F)  | +30 -80%             | 20°C                 | -25~+85°C         |
| (SR) | ±15%                 | 20°C                 | -25~+85°C         |
| (Z)  | +30 -80%             | 20°C                 | -10~+70°C         |

Note:

- 1 Do not use the part number shown on these drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since these drawings were prepared.
- 2 All resistance values are indicated in ohms ( $K=10^3$ ,  $M=10^6$ ).
- 3 Resistor wattages are 1/5W or 1/6W unless otherwise specified.
- 4 All capacitance values are indicated in  $\mu F$  ( $P=10^{-6}\mu F$ ).
- 5 All voltages are DC voltages unless otherwise specified.
- 6 Electrical parts such as capacitors, connectors, diodes, IC's, transistors, resistors, switches, and fuses are identified by four digits. The first two digits are not shown for each component. In each block of the diagram, there is a note such as shown below to indicate these abbreviated two digits.

TUNER BLOCK SYMBOL NO. 70\*\*

Example: "C08" in this "TUNER BLOCK" is C7008.

Capacitors and transistors are represented by the following symbols.

CBA Symbols

(Top View) (Bottom View)

: Electrolytic Capacitor

(Bottom View)

: Transistor or Digital Transistor

(Top View)

NPN Transistor

(Top View)

PNP Transistor

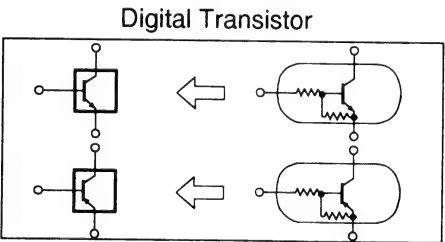
(Top View)

NPN Digital Transistor

(Top View)

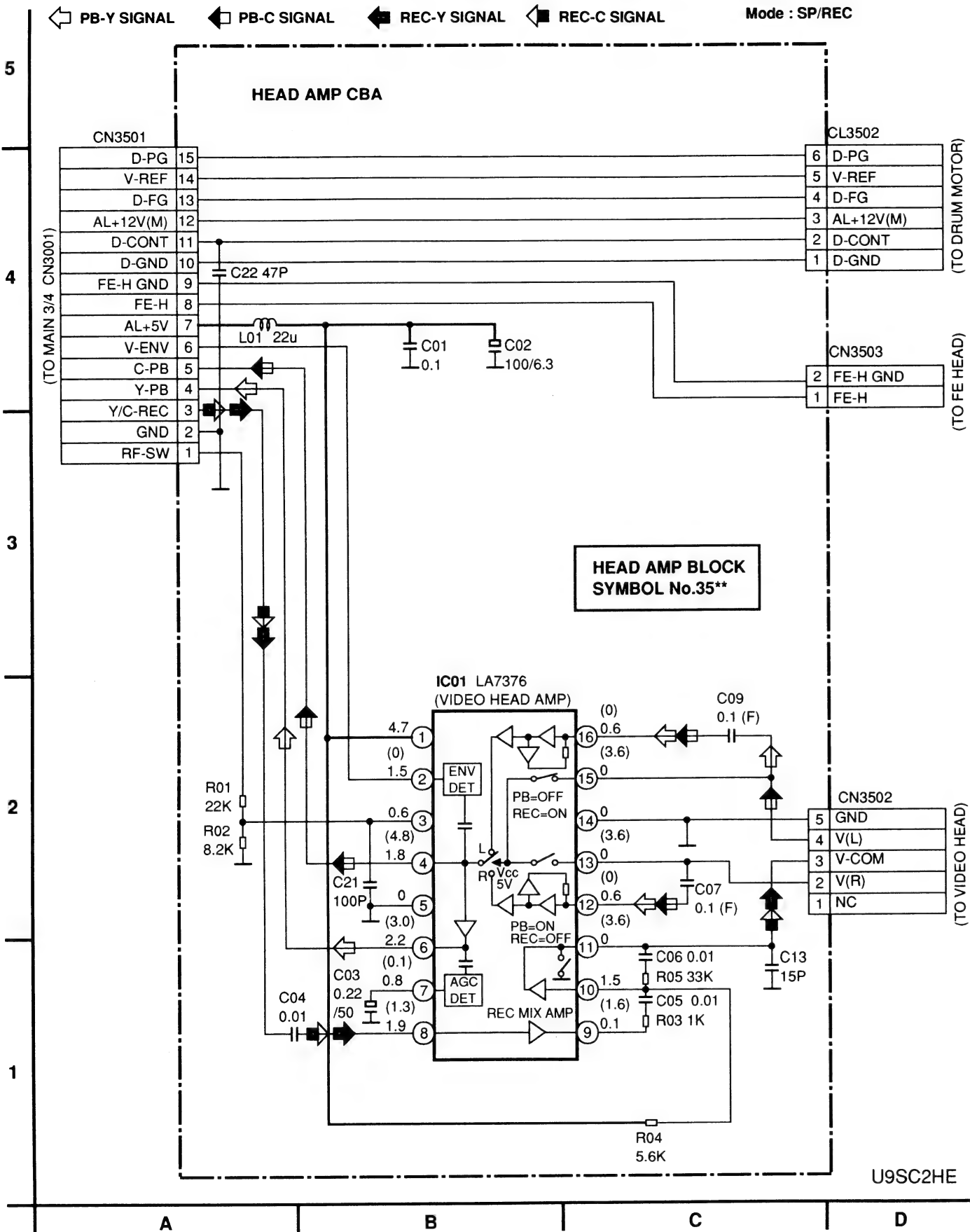
PNP Digital Transistor

Schematic Diagram Symbols

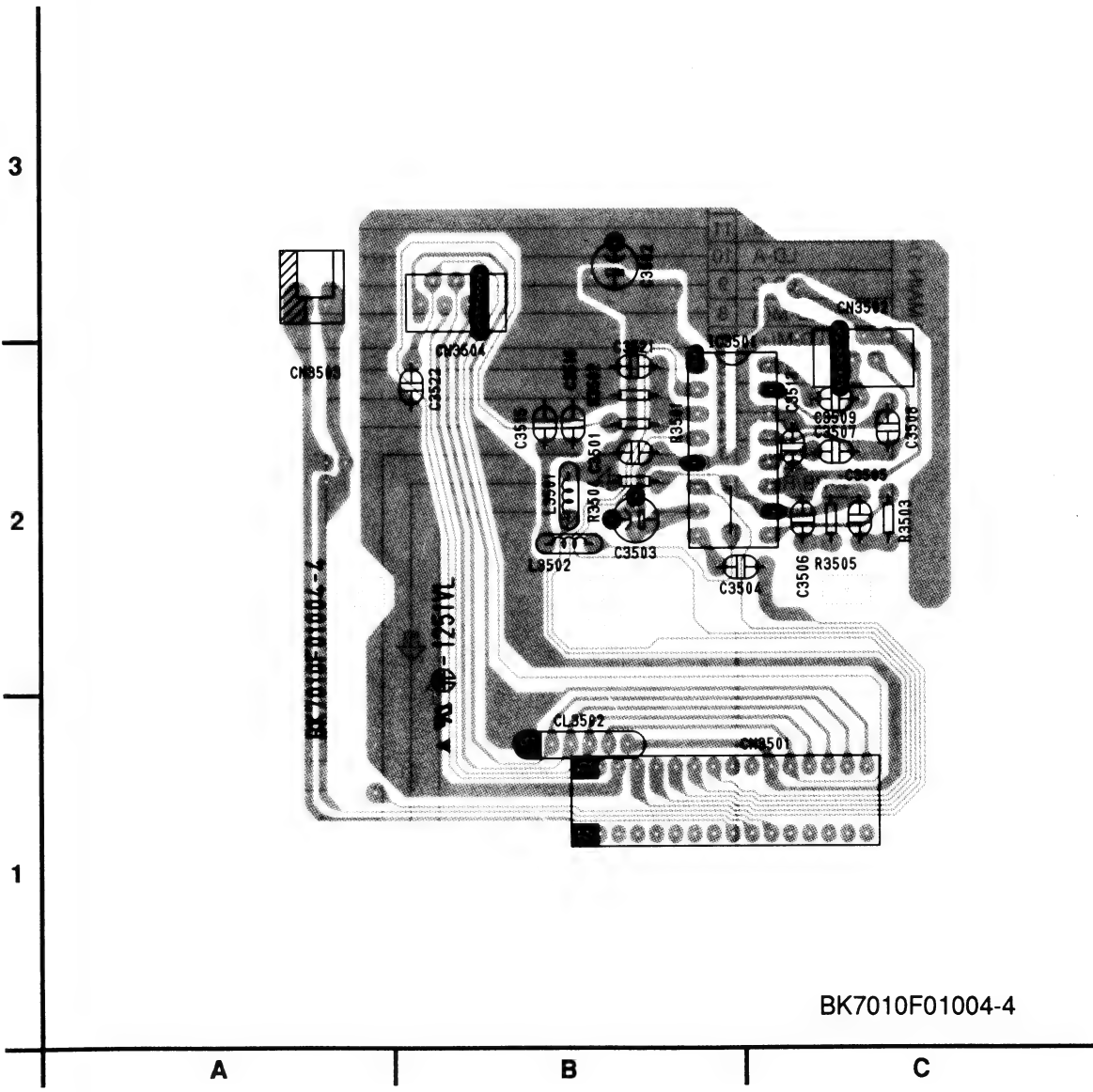




Head Amp Schematic Diagram

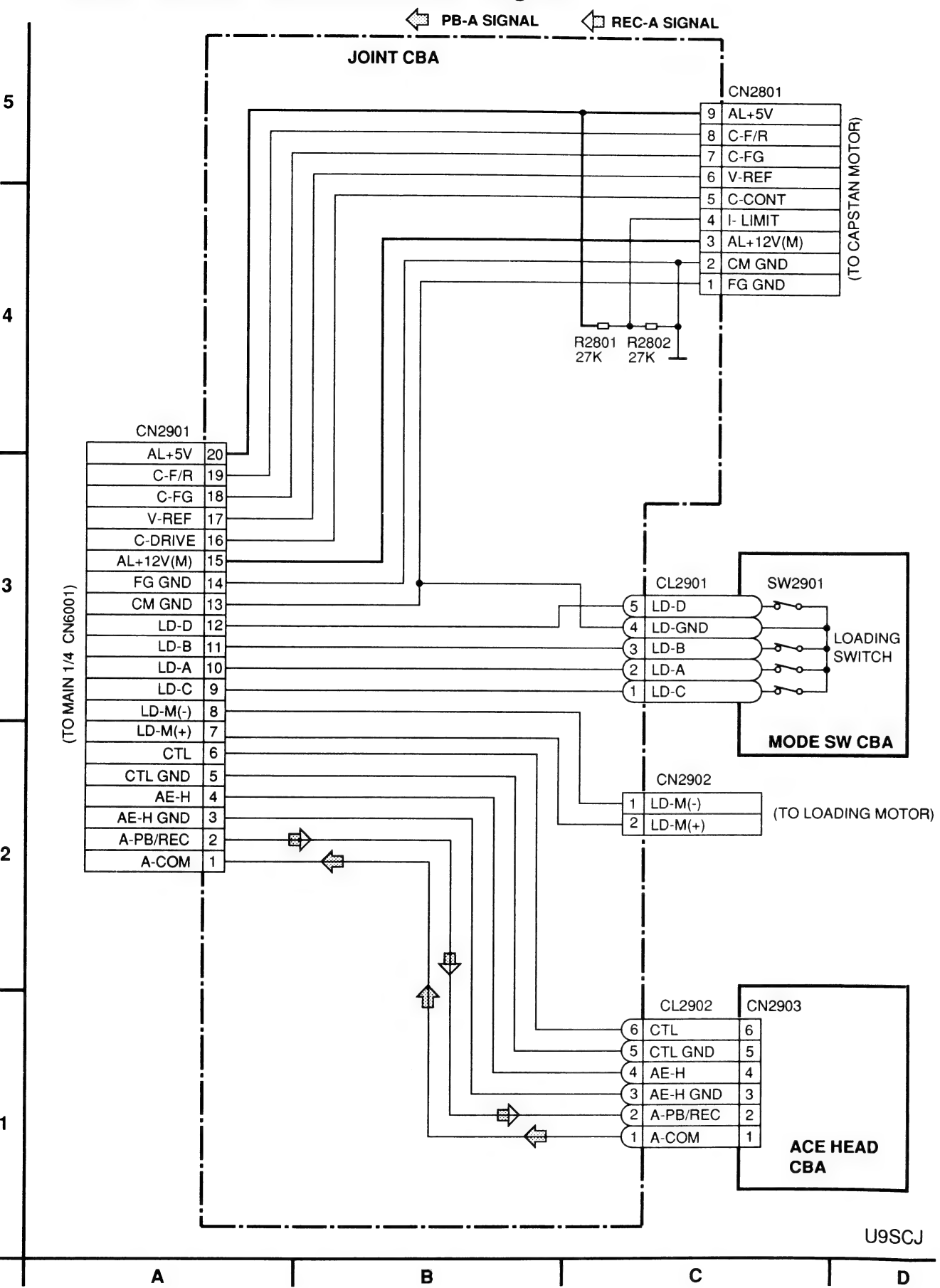


Head Amp CBA Top View

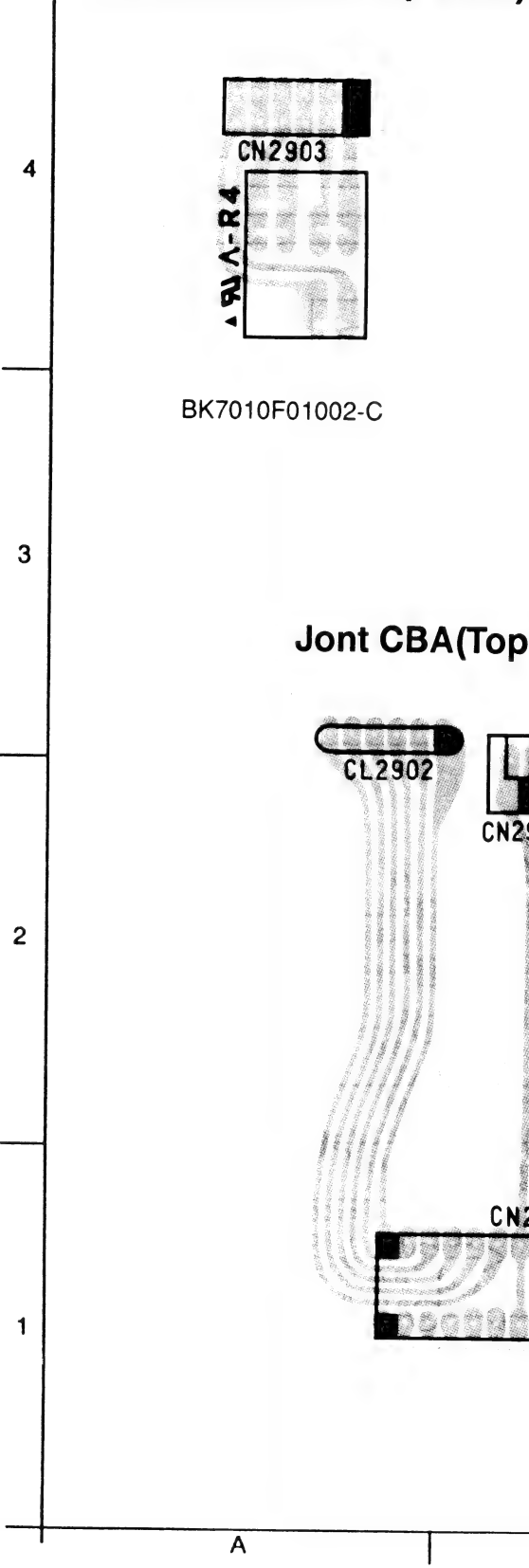


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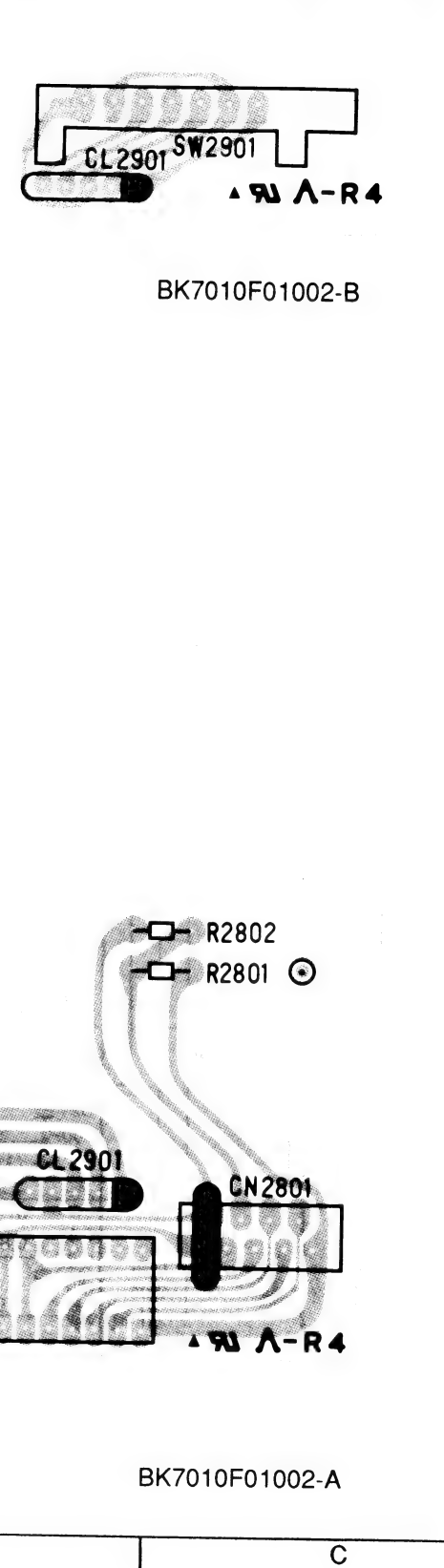
Joint/Mode SW/Ace Head Schematic Diagram



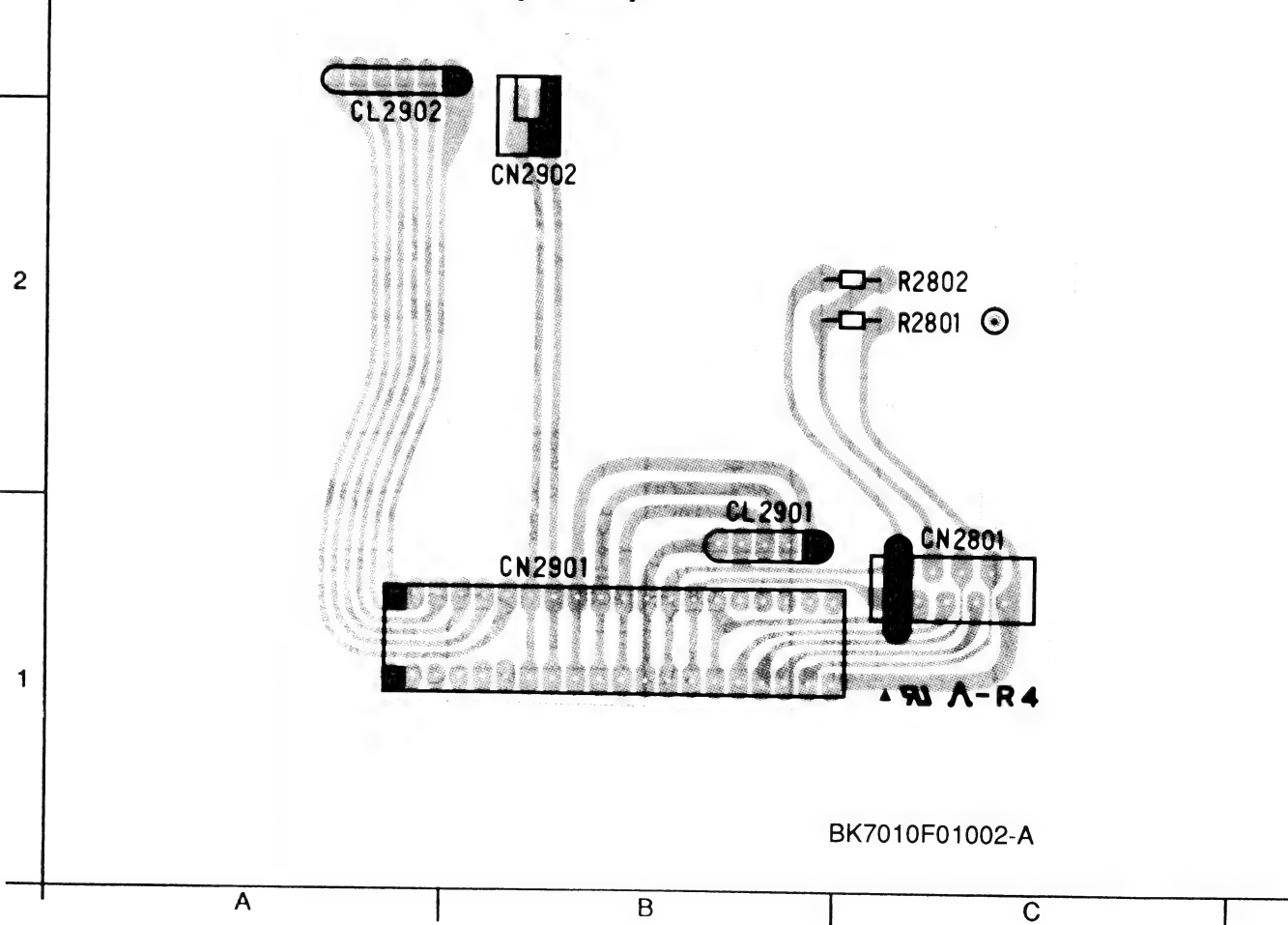
ACE Head CBA(Top View)



Mode SW CBA(Top View)



Jont CBA(Top View)



# EXPLODED VIEWS AND PARTS LIST SECTION

## VIDEO CASSETTE RECORDER

### V-8008CM(N) / V-8008SA(N)

Sec. 3: Exploded views  
and Parts List Section

● Exploded views

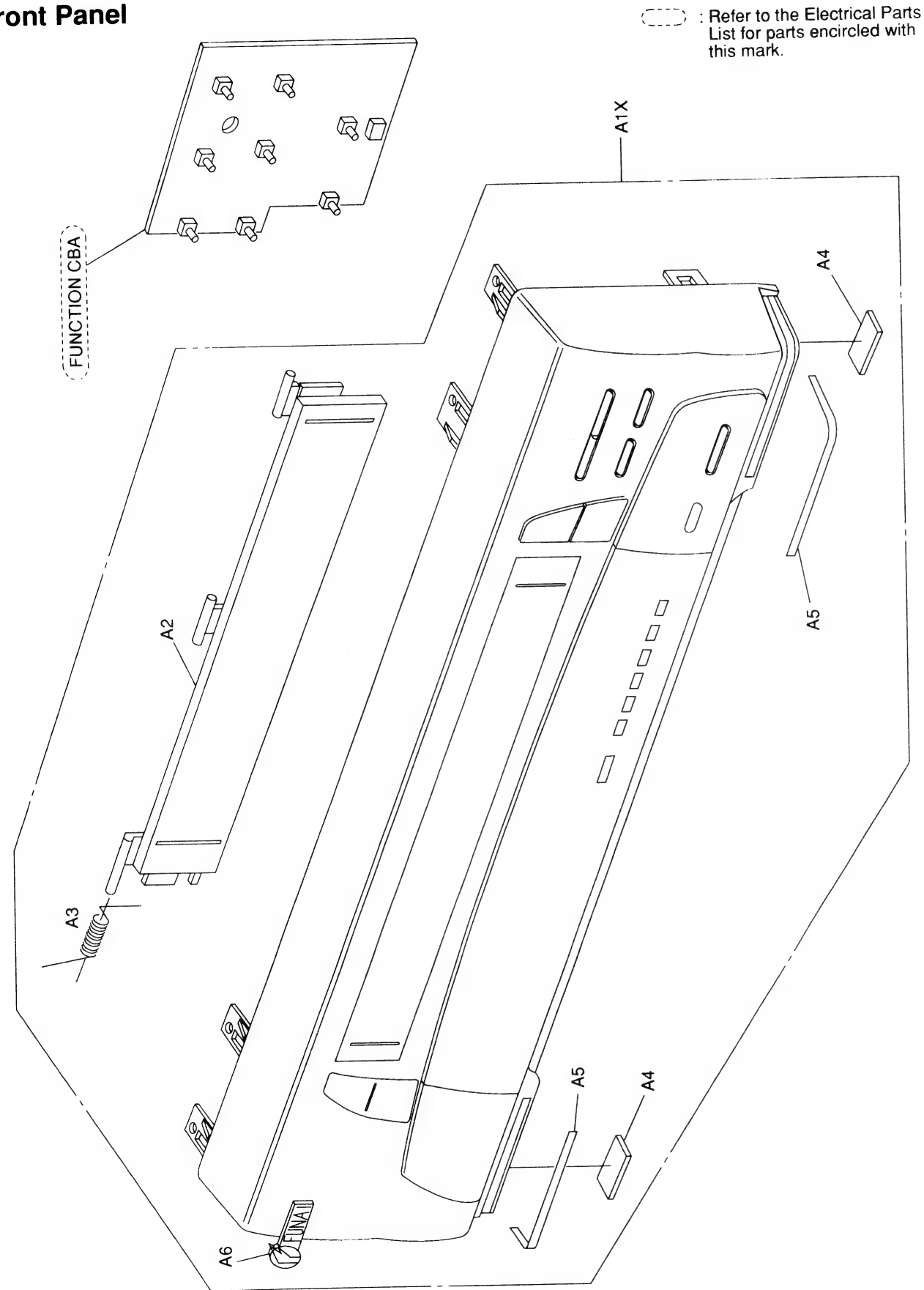
● Parts List

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| Exploded Views .....             | 3-1-1 |
| Mechanical Parts List.....       | 3-2-1 |
| Electrical Parts List .....      | 3-3-1 |
| Deck Mechanical Parts List ..... | 3-4-1 |
| Deck Electrical Parts List ..... | 3-5-1 |

# EXPLODED VIEWS

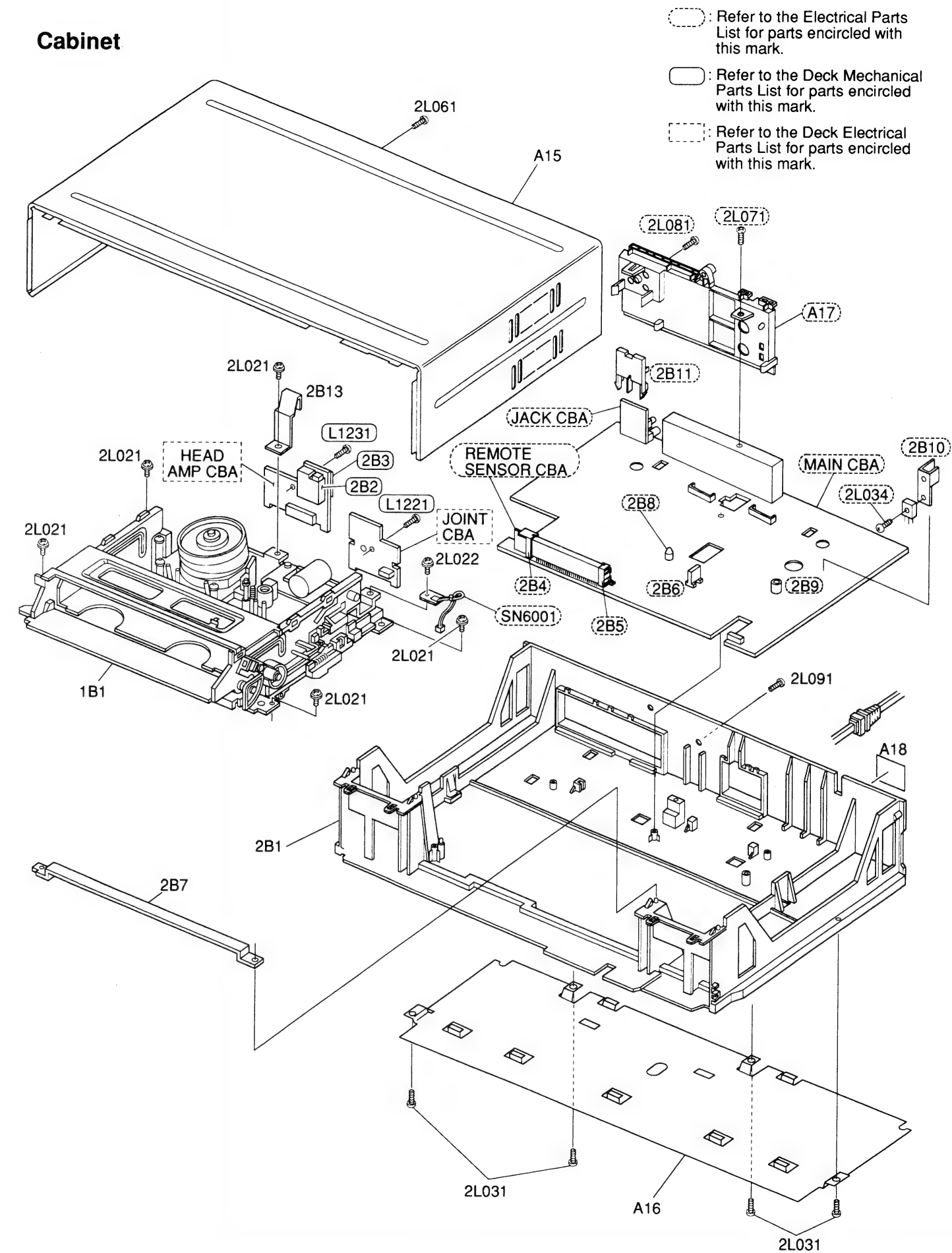
## Front Panel



3-1-1

V2400FEX

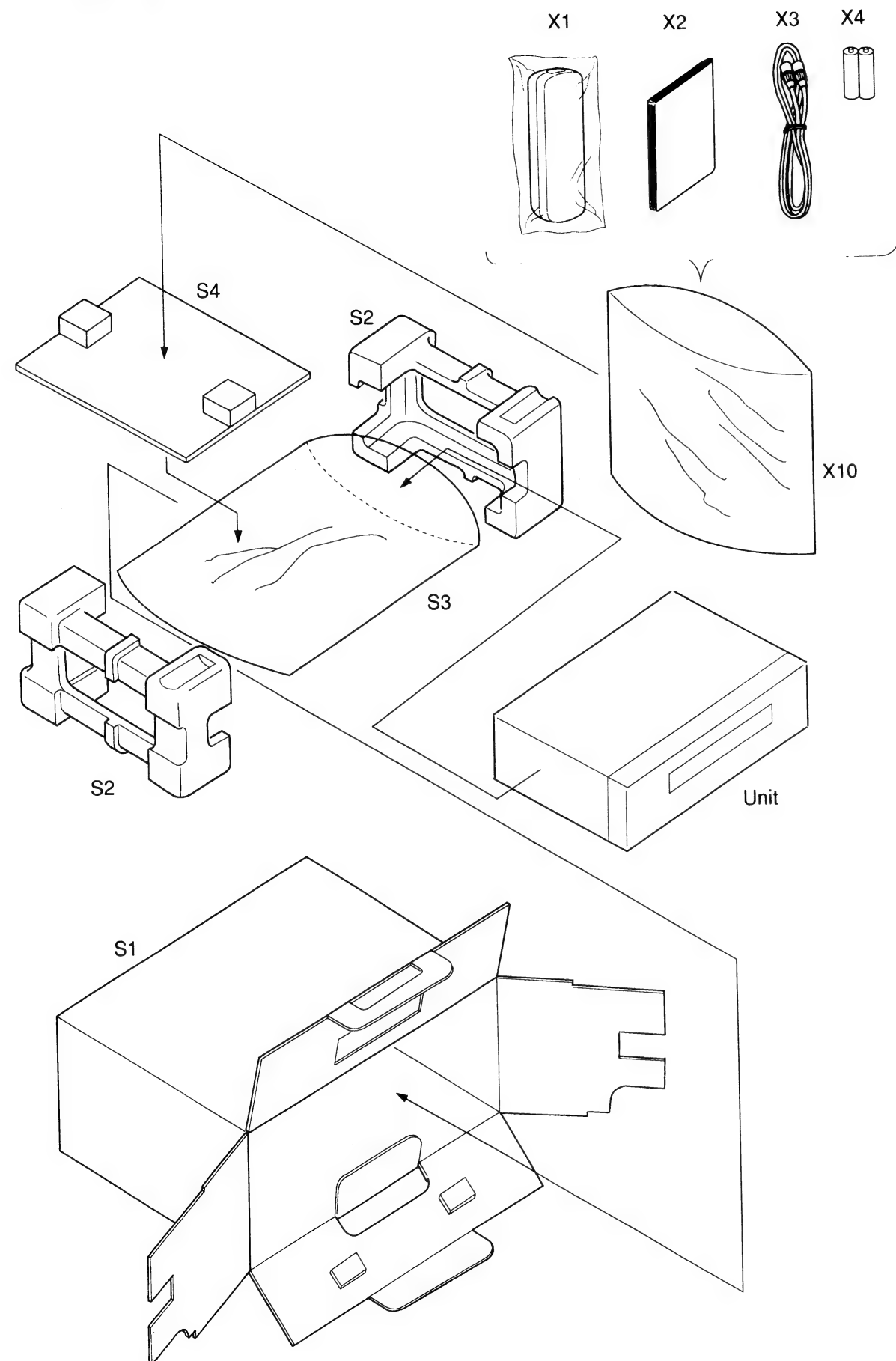
## Cabinet



3-1-2

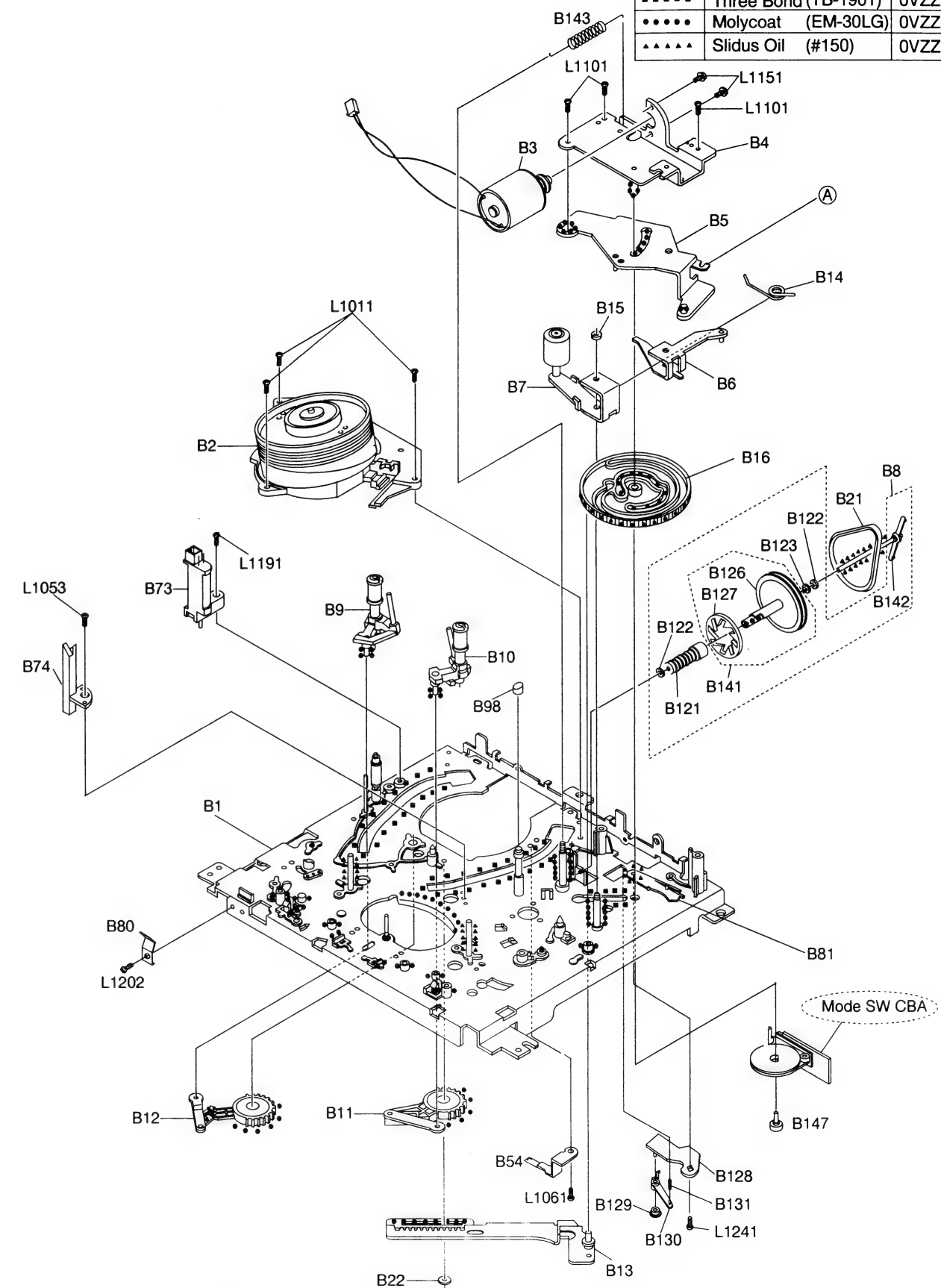
V2400CEX

## Packing



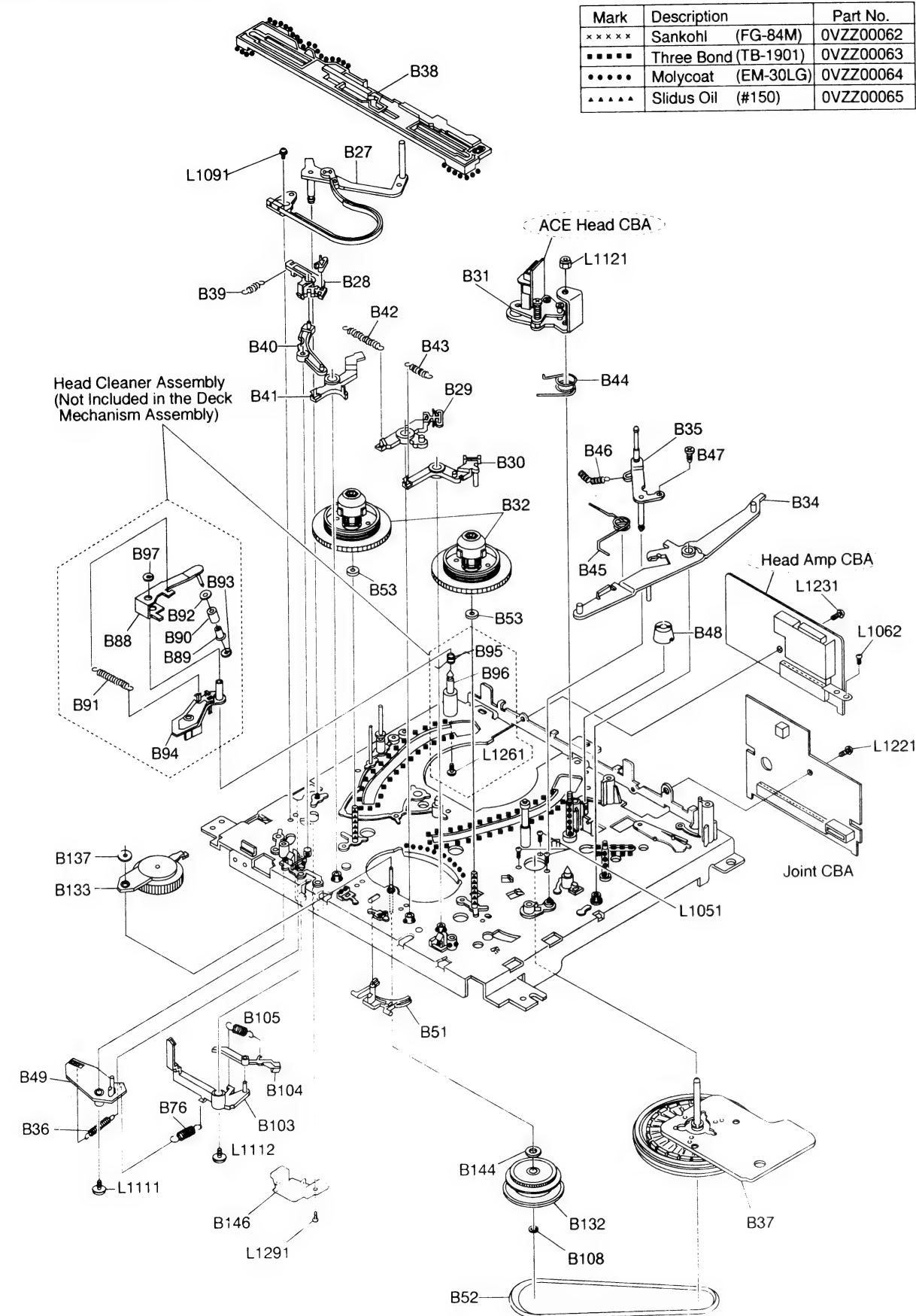
### Deck Mechanism View 1

| Mark      | Description          | Part No.  |
|-----------|----------------------|-----------|
| × × × × × | Sankohl (FG-84M)     | 0VZZ00062 |
| ■ ■ ■ ■ ■ | Three Bond (TB-1901) | 0VZZ00063 |
| ● ● ● ● ● | Molycoat (EM-30LG)   | 0VZZ00064 |
| ▲ ▲ ▲ ▲ ▲ | Slidus Oil (#150)    | 0VZZ00065 |



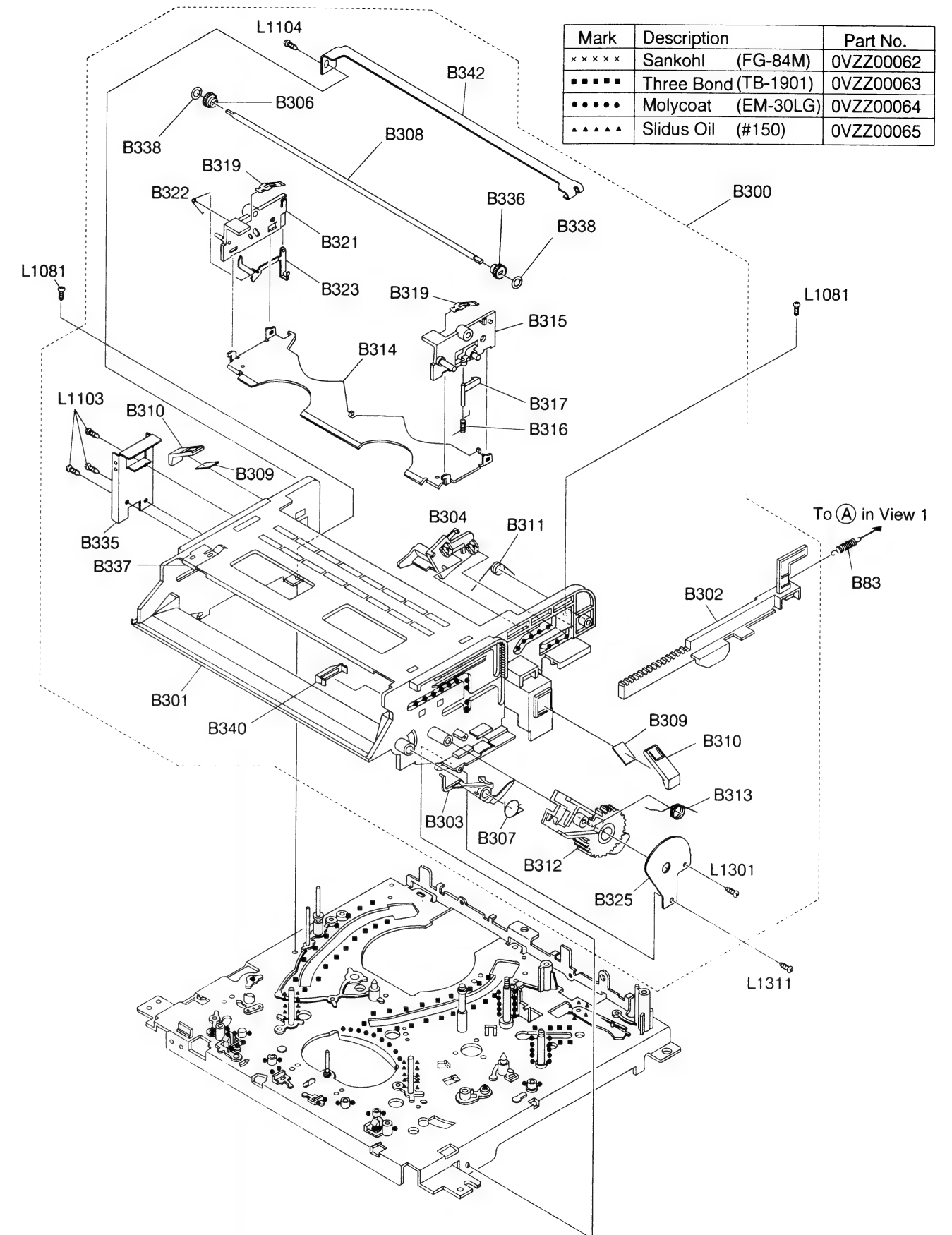
 See the Deck Electrical Parts List.

### Deck MechanismView 2



See the Deck Electrical Parts List.


### Deck Mechanism View 3



To (A) in View 1







MECHANICAL PARTS LIST

**PRODUCT SAFETY NOTE:** Products marked with a  have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice in this service manual. Don't degrade the safety of the product through improper servicing.


**Note:**  
V-8008CM(N) Comparison Charts.

| TYPE       | TYPE A                                                                      | TYPE B               |
|------------|-----------------------------------------------------------------------------|----------------------|
| SERIAL NO. | H42410001 ~ H42422000<br>H44422001A ~ H44479750A<br>H04579751A ~ H**595000A | H45310001~ H**532000 |

| Ref. No.                                                                                | Description                                          | Part No.     |
|-----------------------------------------------------------------------------------------|------------------------------------------------------|--------------|
| A 1X                                                                                    | FRONT ASSEMBLY (V-8008CM(N) only)                    | OVM201603    |
| A 1X                                                                                    | FRONT ASSEMBLY (V-8008SA(N) only)                    | OVM201626    |
| A 2                                                                                     | DOOR, CASSETTE                                       | OVM406031    |
| A 3                                                                                     | SPRING, DOOR                                         | OVM403265    |
| A 4                                                                                     | FOOT                                                 | OVM403657    |
| A 5                                                                                     | PLATE, FOOT                                          | OVM404901    |
| A 6                                                                                     | BADGE                                                | 6D52254      |
| A 15                                                                                    | CASE, TOP                                            | OVM100491    |
| A 16                                                                                    | PANEL, BOTTOM(U7-PAL/LC)                             | OVM201359    |
| A 18   | LABEL, RATING (V-8008CM(N) only)                     | OVM404957    |
| A 18   | LABEL, RATING (V-8008SA(N) only)                     | OVM405657    |
| 1B 1                                                                                    | DECK ASSEMBLY (V-8008CM(N) only)                     | N3102XN      |
| 1B 1                                                                                    | DECK ASSEMBLY (V-8008SA(N) only)                     | N3103XN      |
| 2B 1                                                                                    | VIDEO TRAY(U7 PAL/LC)                                | OVM000052B   |
| 2B 7                                                                                    | HOLDER, DECK                                         | OVM302182A   |
| 2B 13                                                                                   | DECK SUPPORTER                                       | OVM404958    |
| 2L 021                                                                                  | SCREW, P-TIGHT 3X10 WASHER HEAD+                     | GCMP3100     |
| 2L 022                                                                                  | SCREW, P-TIGHT 3X10 WASHER HEAD+                     | GCMP3100     |
| 2L 031                                                                                  | SCREW, A-RAMI-TIGHT M3X10 BIND+                      | DZM23100     |
| 2L 061                                                                                  | SCREW, P-TIGHT 4X12 BIND HEAD+                       | GBKP4120     |
| 2L 091                                                                                  | SCREW, A-TIGHT M3X8 BIND HEAD+                       | DBK13080     |
| PACKING                                                                                 |                                                      |              |
| S 1                                                                                     | GIFT BOX CARTON (V-8008CM(N) only)                   | OVM406016    |
| S 1                                                                                     | GIFT BOX CARTON (V-8008SA(N) only)                   | OVM406157    |
| S 1                                                                                     | GIFT BOX CARTON (V-8008CM(N) only)                   | OVM302301    |
| S 2                                                                                     | STYROFOAM                                            | OVM201336    |
| S 3                                                                                     | UNIT, BAG or                                         | OVM403347    |
| S 4                                                                                     | UNIT, BAG(CONTINUITY) WARNING                        | 0VZZ00001A   |
|                                                                                         | PAD: STYROFOAM                                       | OVM406113    |
| ACCESSORY KIT                                                                           |                                                      |              |
| X 1                                                                                     | REMOCON BOX RRS2000-6501CR (V-8008CM(N) Type A only) | UREMT28SR007 |
| X 1                                                                                     | REMOCON BOX RRS2000-6501CR (V-8008SA(N) only)        | UREMT36SR030 |
| X 1                                                                                     | REMOCON BOX RRS2000-5503CR (V-8008CM(N) Type B only) | UREMT36SR028 |
| X 2  | OWNER'S MANUAL (V-8008CM(N) only)                    | OVMN01485    |
| X 2  | OWNER'S MANUAL (V-8008SA(N) only)                    | OVMN01499    |
| X 3                                                                                     | RF CORD PAL 1.2M or                                  | WPZ0122TM001 |
| X 4                                                                                     | RF CORD PAL 1.2M                                     | WPZ0122TM004 |
|                                                                                         | 1790849                                              |              |
| X 4                                                                                     | DRY BATTERY UM-3(M) 2PCS PACK or                     | 579W099      |
|                                                                                         | DRY BATTERY UM3/RS6 2PCS PACK                        |              |
| X 10                                                                                    | ACCESSORY BAG230X370X0.025T                          | Z323370      |

| Ref. No.            | Description                | Part No.   |
|---------------------|----------------------------|------------|
| HEAD CLEANING BLOCK |                            |            |
| B 88                | CLEANING CALKING ASSEMBLY  | OVM403982  |
| B 89                | CLEANING BEARING           | OVM403208  |
| B 90                | CLEANING ROLLER            | OVM403613  |
| B 91                | CLEANING SPRING            | OVM403614  |
| B 92                | P.S.W7.5X2.1X0.5T          | OVM403615  |
| B 93                | CUT P.S.W6.1X1.6X0.5T      | OVM403616  |
| B 94                | IR ARM                     | OVM301195F |
| B 95                | SPRING IR                  | OVM403211  |
| B 96                | SHAFT CIR                  | OVM403214D |
| B 97                | P.S.W A                    | OVM402624  |
| L 1261              | SCREW, SEMS M3X5 PAN HEAD+ | CPM33050   |

ELECTRICAL PARTS LIST

**PRODUCT SAFETY NOTE:** Products marked with a  have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice in this service manual. Don't degrade the safety of the product through improper servicing.

Parts that not assigned part numbers (-----) are not available.




Tolerance of Capacitors and Resistors are noted with the following symbols.

|              |             |                |
|--------------|-------------|----------------|
| C.....±0.25% | D.....±0.5% | F.....±1%      |
| G.....±2%    | J.....±5%   | K.....±10%     |
| M.....±20%   | N.....±30%  | Z.....+80/-20% |

MCV CBA

| Ref. No. | Description                | Part No.  |
|----------|----------------------------|-----------|
|          | MCV CBA (V-8008CM(N) only) | 0VSA06691 |
|          | MCV CBA (V-8008SA(N) only) | 0VSA06752 |
|          | Consists of the following: |           |
|          | MAIN CBA (MCV-A)           |           |
|          | REMOTE SENSOR CBA (MCV-C)  |           |
|          | REMOTE SENSOR CBA (MCV-D)  |           |

MAIN CBA (MCV-A)

| Ref. No.                                                                                     | Description                            | Part No.     |
|----------------------------------------------------------------------------------------------|----------------------------------------|--------------|
|                                                                                              | MAIN CBA (MCV-A)                       |              |
|                                                                                              | Consists of the following:             |              |
| CAPACITORS                                                                                   |                                        |              |
| C 1001    | METALLIZED FILM CAP. 0.047µF/250V K or | CT2E473NC011 |
| C 1001    | METALLIZED FILM CAP. 0.047µF/250V M or | CT2E473MS001 |
|                                                                                              | METALLIZED FILM CAP. 0.047µF/250V M or | CT2E473UN009 |
| C 1003  | METALLIZED FILM CAP. 0.047µF/275V K    | CT2E473DT001 |
|                                                                                              | SAFETY CAP. 2200pH/400V M              | 122Z011      |
| C 1004                                                                                       | ELECTROLYTIC CAP. 100µF/400V M or      | CA2H101NC008 |
| C 1004                                                                                       | ELECTROLYTIC CAP. 100µF/400V M or      | CA2H101SP025 |
|                                                                                              | ELECTROLYTIC CAP. 100µF/400V M or      | CA2H101EA008 |
| C 1005                                                                                       | ELECTROLYTIC CAP. 100µF/400V M         | CA2H101MS002 |
|                                                                                              | CERAMIC CAP. B K 0.01µF/500V or        | CCD2JKP0B103 |
| C 1005                                                                                       | CERAMIC CAP. 0.01µF/500V or            | CA2J103TU001 |
|                                                                                              | CERAMIC CAP. B K 0.01µF/500V           | CCD2JKD0B103 |
| C 1006                                                                                       | CERAMIC CAP. SL J 180pH/1KV or         | CA3A181MR506 |
| C 1006                                                                                       | CERAMIC CAP. SL K 180pH/1KV            | CCD3AKPSL181 |
|                                                                                              | SEMICONDUCTOR CAP. SR K 0.047µF/25V or | CDA1EKS0X473 |
| C 1007                                                                                       | SEMICONDUCTOR CAP. SR K 0.047µF/25V    | 12Y2473S     |
| C 1008                                                                                       | CERAMIC CAP. X K 0.0033µF/16V          | 3X4C332T     |
| C 1009                                                                                       | CERAMIC CAP. Y M 8200pH/16V            | 3Y4D822T     |
| C 1010                                                                                       | SEMICONDUCTOR CAP.SR K 0.0082µF/25V or | CDA1EKS0X822 |
| C 1010                                                                                       | SEMICONDUCTOR CAP. SR K 0.0082µF/25V   | 12Y2822S     |
|                                                                                              | ELECTROLYTIC CAP. 4.7µF/50V M or       | CE1JMASDL4R7 |
| C 1011                                                                                       | ELECTROLYTIC CAP. 4.7µF/50V M          | 126F475S     |
| C 1012                                                                                       | ELECTROLYTIC CAP. 470µF/16V M or       | CE1CMAUDL471 |
| C 1012                                                                                       | ELECTROLYTIC CAP. 470µF/16V M          | 126C477S     |
|                                                                                              | ELECTROLYTIC CAP. 22µF/50V M or        | CE1JMASDL220 |
| C 1013                                                                                       | ELECTROLYTIC CAP. 22µF/50V M           | 126F226S     |
| C 1014                                                                                       | ELECTROLYTIC CAP. 330µF/16V M or       | CE1CMASDL331 |
| C 1014                                                                                       | ELECTROLYTIC CAP. 330µF/16V M          | 126C337S     |
|                                                                                              | ELECTROLYTIC CAP. 470µF/16V M or       | CE1CMAUDL471 |
| C 1015                                                                                       | ELECTROLYTIC CAP. 470µF/16V M          | 126C477S     |
| C 1016                                                                                       | ELECTROLYTIC CAP. 1000µF/10V M or      | CE1AMAUDL102 |
| C 1016                                                                                       | ELECTROLYTIC CAP. 1000µF/10V M         | 126B108S     |
|                                                                                              | ELECTROLYTIC CAP. 100µF/10V M or       | CE1AMASDL101 |
| C 1017                                                                                       | ELECTROLYTIC CAP. 100µF/10V M          | 126B107S     |
| C 1018                                                                                       | CERAMIC CAP. F Z 0.01µF/50V or         | CCD1JZS0F103 |
| C 1018                                                                                       | CERAMIC CAP. F Z 0.01µF/50V            | 12F3103S     |
|                                                                                              | SEMICONDUCTOR CAP. SR K 0.047µF/25V or | CDA1EKS0X473 |

| Ref. No. | Description                                      | Part No.      |
|----------|--------------------------------------------------|---------------|
|          | SEMICONDUCTOR CAP. SR K 0.047µF/25V              | 12Y2473S      |
| C 1021   | CERAMIC CAP. B J 150pH/50V                       | 3B41151T      |
| C 1501   | ELECTROLY+WC CAP. 0.47µF/50V M H7 or             | CE1JMASSLR47  |
| C 1505   | ELECTROLYTIC CAP. 0.47µF/50V M H7                | 526W474S      |
|          | CERAMIC CAP. SL J 47pH/50V                       | 3S41470T      |
| C 3001   | CERAMIC CAP. SL J 39pH/50V                       | 3S41390T      |
| C 3002   | ELECTROLYTIC CAP. 0.1µF/50V M H7 or              | CE1JMASSLR01  |
| C 3002   | ELECTROLYTIC CAP. 0.1µF/50V M H7                 | 526W104S      |
|          | CERAMIC CAP. B J 150pH/50V                       | 3B41151T      |
| C 3003   | CERAMIC CAP. SL J 68pH/50V                       | 3S41680T      |
| C 3004   | CERAMIC CAP. SL J 68pH/50V                       | 3S41680T      |
| C 3005   | CERAMIC CAP. F Z 0.01µF/25V or                   | CDA1EZT0F103  |
| C 3005   | CERAMIC CAP. F Z 0.01µF/16V                      | 1220842T      |
|          | ELECTROLYTIC CAP. 0.1µF/50V M H7 or              | CE1JMASSLR01  |
| C 3006   | ELECTROLYTIC CAP. 0.1µF/50V M H7                 | 526W104S      |
| C 3007   | CERAMIC CAP. F Z 0.022µF/25V or                  | 122Z122T      |
| C 3007   | CERAMIC CAP. F Z 0.022µF/25V                     | 1220843T      |
|          | CERAMIC CAP. SL J 39pH/50V (V-8008CM(N) only)    | 3S41390T      |
| C 3008   | CERAMIC CAP. SL J 33pH/50V                       | 3S41330T      |
| C 3009   | CERAMIC CAP. SL J 33pH/50V                       | 3S41330T      |
| C 3011   | CERAMIC CAP. SL J 33pH/50V                       | 3S41330T      |
| C 3012   | CERAMIC CAP. SL J 27pH/50V                       | 3S41270T      |
| C 3013   | CERAMIC CAP. SL J 27pH/50V                       | 3S41270T      |
| C 3014   | CERAMIC CAP. Y M 0.01µF/16V or                   | CDA1CMT0Y103  |
| C 3014   | CERAMIC CAP. Y M 0.01µF/16V                      | 3Y4D103T      |
|          | CERAMIC CAP. B J 220pH/50V                       | 3B41221T      |
| C 3015   | CERAMIC CAP. B J 220pH/50V                       | 3B41221T      |
| C 3016   | CERAMIC CAP. SL J 56pH/50V                       | 3S41560T      |
| C 3017   | CERAMIC CAP. B J 220pH/50V                       | 3B41221T      |
| C 3018   | CERAMIC CAP. SL J 47pH/50V (V-8008CM(N) only)    | 3S41470T      |
| C 3018   | CERAMIC CAP. SL J 33pH/50V (V-8008SA(N) only)    | 3S41330T      |
| C 3019   | CERAMIC CAP. SL J 18pH/50V (V-8008SA(N) only)    | 3S41180T      |
| C 3020   | CERAMIC CAP. B J 180pH/50V                       | 3B41181T      |
| C 3021   | CERAMIC CAP. SL J 33pH/50V (V-8008CM(N) only)    | 3S41330T      |
| C 3021   | CERAMIC CAP. SL J 22pH/50V (V-8008SA(N) only)    | 3S41220T      |
| C 3022   | CERAMIC CAP. SL J 47pH/50V                       | 3S41470T      |
| C 3023   | CERAMIC CAP. SL J 82pH/50V (V-8008CM(N) only) or | CCD1JSSSL820  |
| C 3023   | CERAMIC CAP. SL J 82pH/50V (V-8008CM(N) only)    | 1270820S      |
|          | CERAMIC CAP. SL J 56pH/50V (V-8008SA(N) only) or | CCD1JSSSL560  |
| C 3023   | CERAMIC CAP. SL J 56pH/50V (V-8008SA(N) only)    | 1270560S      |
|          | CERAMIC CAP. SL J 22pH/50V                       | 3S41220T      |
| C 3024   | ELECTROLYTIC CAP. 1µF/50V M H7 or                | CE1JMASSLR010 |
| C 3025   | ELECTROLYTIC CAP. 1µF/50V M H7                   | 526W105S      |
| C 3026   | CERAMIC CAP. B J 390pH/50V                       | 3B41391T      |
| C 3027   | CERAMIC CAP. SL J 18pH/50V or                    | CCD1JSSSL180  |

| Ref. No. | Description                            | Part No.      |
|----------|----------------------------------------|---------------|
| C 3028   | CERAMIC CAP. SL J 18pH/50V             | 1270180S      |
| C 3029   | CERAMIC CAP. B J 100pH/50V             | 3B41101T      |
|          | ELECTROLYTIC CAP. 10μF/16V M H7 or     | CE1CMASSL100  |
|          | ELECTROLYTIC CAP. 10μF/16V M H7        | 526T106S      |
| C 3030   | ELECTROLYTIC CAP. 10μF/16V M H7 or     | CE1CMASSL100  |
|          | ELECTROLYTIC CAP. 10μF/16V M H7        | 526T106S      |
| C 3031   | CERAMIC CAP. SL J 15pH/50V or          | CCD1JSSSL150  |
|          | CERAMIC CAP. SL J 15pH/50V             | 1270150S      |
| C 3032   | CERAMIC CAP. F Z 0.01μF/25V or         | CDA1EZT0F103  |
|          | CERAMIC CAP. F Z 0.01μF/16V            | 1220842T      |
| C 3033   | CERAMIC CAP. F Z 0.022μF/25V or        | 122Z122T      |
|          | CERAMIC CAP. F Z 0.022μF/25V           | 1220843T      |
| C 3034   | CERAMIC CAP. F Z 0.022μF/25V or        | 122Z122T      |
|          | CERAMIC CAP. F Z 0.022μF/25V           | 1220843T      |
| C 3035   | ELECTROLYTIC CAP. 1μF/50V M H7 or      | CE1JMASSSL010 |
|          | ELECTROLYTIC CAP. 1μF/50V M H7         | 526W105S      |
| C 3036   | ELECTROLYTIC CAP. 1μF/50V M H7 or      | CE1JMASSSL010 |
|          | ELECTROLYTIC CAP. 1μF/50V M H7         | 526W105S      |
| C 3037   | CERAMIC CAP. F Z 0.01μF/25V or         | CDA1EZT0F103  |
|          | CERAMIC CAP. F Z 0.01μF/16V            | 1220842T      |
| C 3038   | ELECTROLYTIC CAP. 10μF/16V M H7 or     | CE1CMASSL100  |
|          | ELECTROLYTIC CAP. 10μF/16V M H7        | 526T106S      |
| C 3039   | ELECTROLYTIC CAP. 4.7μF/50V M H7 or    | CE1JMASSSL4R7 |
|          | ELECTROLYTIC CAP. 4.7μF/50V M H7       | 526W475S      |
| C 3040   | ELECTROLYTIC CAP. 4.7μF/25V M H7 or    | CE1EMASSL4R7  |
|          | ELECTROLYTIC CAP. 4.7μF/25V M H7       | 526U475S      |
| C 3043   | ELECTROLYTIC CAP. 220μF/6.3V M H7 or   | CE0KMASSL221  |
|          | ELECTROLYTIC CAP. 220μF/6.3V M H7      | 526R227S      |
| C 3044   | CERAMIC CAP. F Z 0.1μF/50V             | 3F40104T      |
| C 3045   | CERAMIC CAP. F Z 0.1μF/50V             | 3F40104T      |
| C 3046   | SEMICONDUCTOR CAP. SR K 0.022μF/25V or | CDA1EKS0X223  |
|          | SEMICONDUCTOR CAP. SR K 0.022μF/25V    | 12Y2223S      |
| C 3047   | ELECTROLYTIC CAP. 4.7μF/50V M H7 or    | CE1JMASSSL4R7 |
|          | ELECTROLYTIC CAP. 4.7μF/50V M H7       | 526W475S      |
| C 3048   | ELECTROLYTIC CAP. 1μF/50V M H7 or      | CE1JMASSSL010 |
|          | ELECTROLYTIC CAP. 1μF/50V M H7         | 526W105S      |
| C 3049   | CERAMIC CAP. F Z 0.01μF/25V or         | CDA1EZT0F103  |
|          | CERAMIC CAP. F Z 0.01μF/16V            | 1220842T      |
| C 3050   | CERAMIC CAP. F Z 0.01μF/25V or         | CDA1EZT0F103  |
|          | CERAMIC CAP. F Z 0.01μF/16V            | 1220842T      |
| C 3051   | ELECTROLYTIC CAP. 1μF/50V M H7 or      | CE1JMASSSL010 |
|          | ELECTROLYTIC CAP. 1μF/50V M H7         | 526W105S      |
| C 3052   | CERAMIC CAP. F Z 0.01μF/50V or         | CCD1JZS0F103  |
|          | CERAMIC CAP. F Z 0.01μF/50V            | 12F3103S      |
| C 3053   | CERAMIC CAP. F Z 0.01μF/50V or         | CCD1JZS0F103  |
|          | CERAMIC CAP. F Z 0.01μF/50V            | 12F3103S      |
| C 3054   | SEMICONDUCTOR CAP. F Z 0.1μF/25V or    | CDA1EZS0F104  |
|          | SEMICONDUCTOR CAP. F Z 0.1μF/25V       | 1220520S      |
| C 3055   | CERAMIC CAP. F Z 0.022μF/25V or        | 122Z122T      |
|          | CERAMIC CAP. F Z 0.022μF/25V           | 1220843T      |
| C 3056   | ELECTROLYTIC CAP. 22μF/6.3V M H7 or    | CE0KMASSL220  |
|          | ELECTROLYTIC CAP. 22μF/6.3V M H7       | 526R226S      |
| C 3057   | ELECTROLYTIC CAP. 1μF/50V M H7 or      | CE1JMASSSL010 |
|          | ELECTROLYTIC CAP. 1μF/50V M H7         | 526W105S      |
| C 3058   | CERAMIC CAP. SL J 15pH/50V or          | CCD1JSSSL150  |
|          | CERAMIC CAP. SL J 15pH/50V             | 1270150S      |
| C 3059   | CERAMIC CAP. F Z 0.01μF/25V or         | CDA1EZT0F103  |
|          | CERAMIC CAP. F Z 0.01μF/16V            | 1220842T      |
| C 3062   | ELECTROLYTIC CAP. 0.1μF/50V M or       | CE1JMASDLO10  |
|          | ELECTROLYTIC CAP. 0.1μF/50V M          | 126F104S      |
| C 3063   | CERAMIC CAP. B J 220pH/50V             | 3B41221T      |
| C 3064   | CERAMIC CAP. F Z 0.047μF/50V           | 3F40473T      |
| C 3069   | CERAMIC CAP. B J 0.001μF/50V           | 3B41102T      |
| C 3070   | CERAMIC CAP. F Z 0.022μF/25V or        | 122Z122T      |
|          | CERAMIC CAP. F Z 0.022μF/25V           | 1220843T      |

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| Ref. No. | Description                                            | Part No.      |
|----------|--------------------------------------------------------|---------------|
| C 3090   | ELECTROLYTIC CAP. 470μF/6.3V M or                      | CE0KMAASDL471 |
|          | ELECTROLYTIC CAP. 470μF/6.3V M                         | 126A477S      |
| C 3091   | ELECTROLYTIC CAP. 100μF/16V M or                       | CE1CMASDL101  |
|          | ELECTROLYTIC CAP. 100μF/16V M                          | 126C107S      |
| C 3101   | CERAMIC CAP. F Z 0.01μF/50V (V-8008CM(N) only) or      | CCD1JZS0F103  |
|          | CERAMIC CAP. F Z 0.01μF/50V (V-8008CM(N) only)         | 12F3103S      |
| C 3102   | CERAMIC CAP. F Z 0.01μF/50V (V-8008CM(N) only) or      | CCD1JZS0F103  |
|          | CERAMIC CAP. F Z 0.01μF/50V (V-8008CM(N) only)         | 12F3103S      |
| C 3103   | ELECTROLYTIC CAP. 2.2μF/50V M H7 (V-8008CM(N) only) or | CE1JMASSSL2R2 |
|          | ELECTROLYTIC CAP. 2.2μF/50V M H7 (V-8008CM(N) only)    | 526W225S      |
| C 3104   | ELECTROLYTIC CAP. 100μF/6.3V M (V-8008CM(N) only) or   | CE0KMAASDL101 |
|          | ELECTROLYTIC CAP. 100μF/6.3V M (V-8008CM(N) only)      | 126A107S      |
| C 3105   | ELECTROLYTIC CAP. 3.3μF/50V M (V-8008CM(N) only) or    | CE1JMASDL3R3  |
|          | ELECTROLYTIC CAP. 3.3μF/50V M (V-8008CM(N) only)       | 126F335S      |
| C 3106   | ELECTROLYTIC CAP. 3.3μF/50V M (V-8008CM(N) only) or    | CE1JMASDL3R3  |
|          | ELECTROLYTIC CAP. 3.3μF/50V M (V-8008CM(N) only)       | 126F335S      |
| C 4001   | CERAMIC CAP. B K 1000pH/50V or                         | CCD1JKS0B102  |
|          | CERAMIC CAP. B K 0.001μF/50V                           | 12B3102S      |
| C 4002   | CERAMIC CAP. X K 0.0018μF/16V (V-8008SA(N) only) or    | 3X4C182T      |
| C 4003   | SEMICONDUCTOR CAP. SR K 0.01μF/25V or                  | CDA1EKS0X103  |
|          | SEMICONDUCTOR CAP. SR K 0.01μF/25V                     | 12Y2103S      |
| C 4004   | ELECTROLYTIC CAP. 22μF/16V M H7 or                     | CE1CMASSL220  |
|          | ELECTROLYTIC CAP. 22μF/16V M H7                        | 526T226S      |
| C 4005   | ELECTROLYTIC CAP. 10μF/16V M H7 or                     | CE1CMASSL100  |
|          | ELECTROLYTIC CAP. 10μF/16V M H7                        | 526T106S      |
| C 4006   | CERAMIC CAP. F Z 0.1μF/50V                             | 3F40104T      |
| C 4007   | ELECTROLYTIC CAP. 3.3μF/50V M or                       | CE1JMASDL3R3  |
|          | ELECTROLYTIC CAP. 3.3μF/50V M                          | 126F335S      |
| C 4008   | SEMICONDUCTOR CAP. F Z 0.1μF/25V or                    | CDA1EZS0F104  |
|          | SEMICONDUCTOR CAP. F Z 0.1μF/25V                       | 1220520S      |
| C 4009   | CERAMIC CAP. X K 0.0068μF/16V                          | 3X4C682T      |
| C 4010   | ELECTROLYTIC CAP. 10μF/16V M H7 or                     | CE1CMASSL100  |
|          | ELECTROLYTIC CAP. 10μF/16V M H7                        | 526T106S      |
| C 4011   | CERAMIC CAP. F Z 0.1μF/50V                             | 3F40104T      |
| C 4012   | SEMICONDUCTOR CAP. F Z 0.1μF/25V or                    | CDA1EZS0F104  |
|          | SEMICONDUCTOR CAP. F Z 0.1μF/25V                       | 1220520S      |
| C 4013   | ELECTROLYTIC CAP. 1μF/50V M H7 or                      | CE1JMASSSL010 |
|          | ELECTROLYTIC CAP. 1μF/50V M H7                         | 526W105S      |
| C 4014   | ELECTROLYTIC CAP. 10μF/16V M H7 or                     | CE1CMASSL100  |
|          | ELECTROLYTIC CAP. 10μF/16V M H7                        | 526T106S      |
| C 4015   | ELECTROLYTIC CAP. 47μF/16V M H7 or                     | CE1CMASSL470  |
|          | ELECTROLYTIC CAP. 47μF/16V M H7                        | 526T476S      |
| C 4016   | CERAMIC CAP. Y M 0.01μF/16V or                         | CDA1CMT0Y103  |
|          | CERAMIC CAP. Y M 0.01μF/16V                            | 3Y4D103T      |
| C 4017   | CERAMIC CAP. Y M 0.01μF/16V or                         | CDA1CMT0Y103  |
|          | CERAMIC CAP. Y M 0.01μF/16V                            | 3Y4D103T      |
| C 4019   | *MYLAR CAP. 0.047μF/100V J or                          | CMA2AJS00473  |
|          | MYLAR CAP. 0.047μF/100V J                              | 1255473S      |
| C 4020   | CERAMIC CAP. Y M 0.01μF/16V or                         | CDA1CMT0Y103  |
|          | CERAMIC CAP. Y M 0.01μF/16V                            | 3Y4D103T      |
| C 4021   | CERAMIC CAP. X K 0.0068μF/16V                          | 3X4C682T      |
| C 4022   | CERAMIC CAP. X K 0.0027μF/16V                          | 3X4C272T      |
| C 4023   | CERAMIC CAP. B J 220pH/50V                             | 3B41221T      |
| C 6002   | ELECTROLYTIC CAP. 2.2μF/50V M H7 or                    | CE1JMASSSL2R2 |
|          | ELECTROLYTIC CAP. 2.2μF/50V M H7                       | 526W225S      |

| Ref. No. | Description                           | Part No.      |
|----------|---------------------------------------|---------------|
| C 6003   | CERAMIC CAP. F Z 0.047μF/50V          | 3F40473T      |
| C 6004   | CERAMIC CAP. SL J 10pH/50V            | 3S41100T      |
| C 6005   | CERAMIC CAP. SL J 15pH/50V            | 3S41150T      |
| C 6006   | CERAMIC CAP. F Z 0.1μF/50V            | 3F40104T      |
| C 6007   | ELECTROLYTIC CAP. 10μF/16V M          | CE1CMASDL100  |
| C 6008   | ELECTROLYTIC CAP. 33μF/6.3V M         | CE0KMASSDL330 |
| C 6009   | CERAMIC CAP. F Z 0.022μF/50V or       | CCD1JZS0F223  |
|          | CERAMIC CAP. F Z 0.022μF/50V          | 12F3223S      |
| C 6010   | CERAMIC CAP. SL J 27pH/50V or         | CCD1JSSSL270  |
|          | CERAMIC CAP. SL J 27pH/50V            | 1270270S      |
| C 6011   | CERAMIC CAP. SL J 27pH/50V or         | CCD1JSSSL270  |
|          | CERAMIC CAP. SL J 27pH/50V            | 1270270S      |
| C 6012   | ELECTROLYTIC CAP. 330μF/6.3V M H7 or  | CE0KMASSSL331 |
|          | ELECTROLYTIC CAP. 330μF/6.3V M H7     | 526R337S      |
| C 6013   | CERAMIC CAP. F Z 0.022μF/50V or       | CCD1JZS0F223  |
|          | CERAMIC CAP. F Z 0.022μF/50V          | 12F3223S      |
| C 6014   | SEMICONDUCTOR CAP. SR K 0.1μF/25V or  | CDA1EKS0X104  |
|          | SEMICONDUCTOR CAP. SR K 0.1μF/25V     | 12Y2104S      |
| C 6015   | SEMICONDUCTOR CAP. SR K 0.1μF/25V or  | CDA1EKS0X104  |
|          | SEMICONDUCTOR CAP. SR K 0.1μF/25V     | 12Y2104S      |
| C 6016   | ELECTROLYTIC CAP. 220μF/6.3V M or     | CE0KMAASDL221 |
|          | ELECTROLYTIC CAP. 220μF/6.3V M        | 126A227S      |
| C 6018   | CERAMIC CAP. B K 1000pH/50V or        | CCD1JKS0B102  |
|          | CERAMIC CAP. B K 0.001μF/50V          | 12B3102S      |
| C 6019   | CERAMIC CAP. B J 0.001μF/50V          | 3B41102T      |
| C 6020   | CERAMIC CAP. F Z 0.01μF/50V or        | CCD1JZS0F103  |
|          | CERAMIC CAP. F Z 0.01μF/50V           | 12F3103S      |
| C 6021   | ELECTROLYTIC CAP. 22μF/16V M          | CE1CMASDL220  |
| C 6022   | CERAMIC CAP. F Z 0.01μF/50V or        | CCD1JZS0F103  |
|          | CERAMIC CAP. F Z 0.01μF/50V           | 12F3103S      |
| C 6023   | ELECTROLYTIC CAP. 47μF/6.3V M H7 or   | CE0KMASSL470  |
|          | ELECTROLYTIC CAP. 47μF/6.3V M H7      | 526R476S      |
| C 6024   | CERAMIC CAP. SL J 82pH/50V or         | CCD1JSSSL820  |
|          | CERAMIC CAP. SL J 82pH/50V            | 1270820S      |
| C 6025   | CERAMIC CAP. B J 0.001μF/50V          | 3B41102T      |
| C 6027   | CERAMIC CAP. F Z 0.01μF/25V or        | CDA1EZT0F103  |
|          | CERAMIC CAP. F Z 0.01μF/16V           | 1220842T      |
| C 6029   | ELECTROLYTIC CAP. 10μF/16V M LL H7 or | CA1C100SP018  |
|          | ELECTROLYTIC CAP. 10μF/16V M LL H7    | CE1CMASHL100  |
| C 6030   | ELECTROLYTIC CAP. 2.2μF/50V M H7 or   | CE1JMASSSL2R2 |
|          | ELECTROLYTIC CAP. 2.2μF/50V M H7      | 526W225S      |
| C 6031   | ELECTROLYTIC CAP. 10μF/16V M H7 or    | CE1CMASSL100  |
|          | ELECTROLYTIC CAP. 10μF/16V M H7       | 526T106S      |
| C 6032   | CERAMIC CAP. B K 2200pH/50V or        | CCD1JKS0B222  |
|          | CERAMIC CAP. B K 0.0022μF/50V         | 12B3222S      |
| C 6033   | CERAMIC CAP. B J 0.001μF/50V          | 3B41102T      |
| C 6034   | CERAMIC CAP. B J 0.001μF/50V          | 3B41102T      |
| C 6035   | ELECTROLYTIC CAP. 10μF/16V M          | CE1CMASDL100  |
| C 6036   | CERAMIC CAP. F Z 0.047μF/50V          | 3F40473T      |
| C 6037   | CERAMIC CAP. B J 180pH/50V            | 3B41181T      |
| C 7001   | CERAMIC CAP. F Z 0.047μF/50V          | 3F40473T      |
| C 7002   | CERAMIC CAP. F Z 0.047μF/50V          | 3F40473T      |
| C 7003   | CERAMIC CAP. X K 0.0022μF/16V         | 3X4C222T      |
| C 7005   | CERAMIC CAP. B J 0.001μF/50V          | 3B41102T      |
| C 7006   | ELECTROLYTIC CAP. 10μF/16V M          | CE1CMASDL100  |
| C 7007   | ELECTROLYTIC CAP. 100μF/16V M or      | CE1CMASDL101  |
|          | ELECTROLYTIC CAP. 100μF/16V M         | 126C107S      |
| C 7008   | CERAMIC CAP. SL J 56pH/50V            | 3S41560T      |
| C 7009   | ELECTROLYTIC CAP. 47μF/35V M or       | CE1GMASDL470  |
|          | ELECTROLYTIC CAP. 47μF/35V M          | 126E476S      |
| C 7010   | MYLAR CAP. 0.1μF/50V J or             | CMA1JJS00104  |
|          | MYLAR CAP. 0.1μF/50V J                | 2254104S      |
| C 7011   | MYLAR CAP. 0.1μF/50V J or             | CMA1JJS00104  |
|          | MYLAR CAP. 0.1μF/50V J                | 2254104S      |
| C 7012   | MYLAR CAP. 0.1μF/50V J or             | CMA1JJS00104  |
|          | MYLAR CAP. 0.1μF/50V J                | 2254104S      |

| Ref. No.          | Description                          | Part No.      |
|-------------------|--------------------------------------|---------------|
| C 7013            | CERAMIC CAP. X K 0.0022μF/16V        | 3X4C222T      |
| C 7014            | CERAMIC CAP. X K 0.0022μF/16V        | 3X4C222T      |
| C 7015            | CERAMIC CAP. X K 0.0068μF/16V        | 3X4C682T      |
| C 7016            | ELECTROLYTIC CAP. 470μF/6.3V M or    | CE0KMAASDL471 |
|                   | ELECTROLYTIC CAP. 470μF/6.3V M       | 126A477S      |
| C 7017            | CERAMIC CAP. F Z 0.1μF/50V           | 3F40104T      |
| C 7018            | CERAMIC CAP. X K 0.0022μF/16V        | 3X4C222T      |
| C 7020            | CERAMIC CAP. B J 0.001μF/50V         | 3B41102T      |
| C 7021            | CERAMIC CAP. F Z 0.1μF/50V           | 3F40104T      |
| C 7022            | CERAMIC CAP. X K 0.0022μF/16V        | 3X4C222T      |
| C 7024            | ELECTROLYTIC CAP. 10μF/16V M         | CE1CMASDL100  |
| C 7025            | ELECTROLYTIC CAP. 4.7μF/50V M or     | CE1JMASDL4R7  |
|                   | ELECTROLYTIC CAP. 4.7μF/50V M        | 126F475S      |
| C 7501            | CERAMIC CAP. F Z 0.01μF/50V or       | CCD1JZS0F103  |
|                   | CERAMIC CAP. F Z 0.01μF/50V          | 12F3103S      |
| C 7502            | ELECTROLYTIC CAP. 10μF/16V M         | CE1CMASDL100  |
| C 7503            | CERAMIC CAP. X K 0.0033μF/16V        | 3X4C332T      |
| C 7504            | CERAMIC CAP. B J 470pH/50V           | 3B41471T      |
| C 7505            | CERAMIC CAP. B J 150pH/50V           | 3B41151T      |
| <b>CONNECTORS</b> |                                      |               |
| CN3001            | STRAIGHT PIN CONNECTOR, 15P          | 1770635       |
| CN6001            | STRAIGHT PIN CONNECTOR, 20P          | 1770640       |
| CN6002            | HINGED PIN CONNECTOR 4P              | J3TRJ04TG003  |
| CN6005            | STRAIGHT PIN HEADER, 2P              | 1740764       |
| <b>DIODES</b>     |                                      |               |
| D 1001            | RECTIFIER DIODE 1N4005 or            | ND8Z001N4005  |
|                   | RECTIFIER DIODE 1A5 or               | NDQZ000001A5  |
|                   | RECTIFIER DIODE 1N4005E              | NDQZ01N4005E  |
| D 1002            | RECTIFIER DIODE 1N4005 or            | ND8Z001N4005  |
|                   | RECTIFIER DIODE 1A5 or               | NDQZ000001A5  |
|                   | RECTIFIER DIODE 1N4005E              | NDQZ01N4005E  |
| D 1003            | RECTIFIER DIODE 1N4005 or            | ND8Z001N4005  |
|                   | RECTIFIER DIODE 1A5 or               | NDQZ000001A5  |
|                   | RECTIFIER DIODE 1N4005E              | NDQZ01N4005E  |
| D 1004            | RECTIFIER DIODE 1N4005 or            | ND8Z001N4005  |
|                   | RECTIFIER DIODE 1A5 or               | NDQZ000001A5  |
|                   | RECTIFIER DIODE 1N4005E              | NDQZ01N4005E  |
| D 1005            | RECTIFIER DIODE EG01C                | QDPZ000EG01C  |
| D 1006            | SWITCHING DIODE 1N4148M or           | NDT201N4148M  |
|                   | SWITCHING DIODE 1N4148M or           | QDT201N4148M  |
|                   | SWITCHING DIODE GMB01-BT             | GMB01BT       |
| D 1007            | SWITCHING DIODE 1N4148M or           | NDT201N4148M  |
|                   | SWITCHING DIODE 1N4148M or           | QDT201N4148M  |
|                   | SWITCHING DIODE GMB01-BT             | GMB01BT       |
| D 1009            | RECTIFIER DIODE EG01C                | QDPZ000EG01C  |
| D 1010            | RECTIFIER DIODE RU3YX LF-C4 or       | QD7Z000RU3YX  |
|                   | FAST RECOVERY DIODE EGP20B or        | NDQB000EGP20  |
|                   | FAST RECOVERY DIODE EGP20D           | NDQD000EGP20  |
| D 1011            | RECTIFIER DIODE EG01C                | QDPZ000EG01C  |
| D 1012            | SCHOTTKY BARRIER DIODE AK03 LF-01 or | QDQZ0000AK03  |
|                   | SCHOTTKY BARRIER DIODE SB040 or      | NDQZ000SB040  |
|                   | SCHOTTKY BARRIER DIODE 11EQS04       | QD4Z011EQS04  |
| D 1013            | SWITCHING DIODE BAV18 or             | NDQZ000BAV18  |
|                   | SWITCHING DIODE MA178                | QDPZ000MA178  |



| Ref. No. | Description                                                                                                                                   | Part No.                                                     |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| D 1505   | ZENER DIODE UZ-9.1BSC                                                                                                                         | QDTC0UZ9R1BS                                                 |
| D 1506   | PCB JUMPER D0.6-P5.0                                                                                                                          | JW5.0T                                                       |
| D 1508   | RECTIFIER DIODE 1N4005 or<br>RECTIFIER DIODE 1A5 or<br>RECTIFIER DIODE 1N4005E                                                                | ND8Z001N4005<br>NDQZ000001A5<br>NDQZ01N4005E                 |
| D 1509   | PCB JUMPER D0.6-P5.0                                                                                                                          | JW5.0T                                                       |
| D 1510   | PCB JUMPER D0.6-P5.0                                                                                                                          | JW5.0T                                                       |
| D 3002   | SWITCHING DIODE 1N4148M or<br>SWITCHING DIODE 1N4148M or<br>SWITCHING DIODE GMB01-BT                                                          | NDTZ01N4148M<br>QDTZ01N4148M<br>GMB01BT                      |
| D 3003   | SWITCHING DIODE 1N4148M or<br>SWITCHING DIODE 1N4148M or<br>SWITCHING DIODE GMB01-BT                                                          | NDTZ01N4148M<br>QDTZ01N4148M<br>GMB01BT                      |
| D 3006   | SWITCHING DIODE GMB01-BT (V-8008SA(N) only) or<br>SWITCHING DIODE 1N4148M (V-8008SA(N) only) or<br>SWITCHING DIODE 1N4148M (V-8008SA(N) only) | GMB01BT<br>NDTZ01N4148M<br>QDTZ01N4148M                      |
| D 3007   | SWITCHING DIODE 1N4148M or<br>SWITCHING DIODE 1N4148M or<br>SWITCHING DIODE GMB01-BT                                                          | NDTZ01N4148M<br>QDTZ01N4148M<br>GMB01BT                      |
| D 3101   | SWITCHING DIODE 1N4148M (V-8008CM(N) only) or<br>SWITCHING DIODE 1N4148M (V-8008CM(N) only) or<br>SWITCHING DIODE GMB01-BT (V-8008CM(N) only) | NDTZ01N4148M<br>QDTZ01N4148M<br>GMB01BT                      |
| D 3102   | SWITCHING DIODE 1N4148M (V-8008CM(N) only) or<br>SWITCHING DIODE 1N4148M (V-8008CM(N) only) or<br>SWITCHING DIODE GMB01-BT (V-8008CM(N) only) | NDTZ01N4148M<br>QDTZ01N4148M<br>GMB01BT                      |
| D 6001   | SWITCHING DIODE 1N4148M or<br>SWITCHING DIODE 1N4148M or<br>SWITCHING DIODE GMB01-BT                                                          | NDTZ01N4148M<br>QDTZ01N4148M<br>GMB01BT                      |
| D 6004   | SWITCHING DIODE 1N4148M or<br>SWITCHING DIODE 1N4148M or<br>SWITCHING DIODE GMB01-BT                                                          | NDTZ01N4148M<br>QDTZ01N4148M<br>GMB01BT                      |
| D 6005   | SWITCHING DIODE 1N4148M or<br>SWITCHING DIODE 1N4148M or<br>SWITCHING DIODE GMB01-BT                                                          | NDTZ01N4148M<br>QDTZ01N4148M<br>GMB01BT                      |
| D 6006   | SWITCHING DIODE 1N4148M or<br>SWITCHING DIODE 1N4148M or<br>SWITCHING DIODE GMB01-BT                                                          | NDTZ01N4148M<br>QDTZ01N4148M<br>GMB01BT                      |
| D 6007   | SWITCHING DIODE 1N4148M or<br>SWITCHING DIODE 1N4148M or<br>SWITCHING DIODE GMB01-BT                                                          | NDTZ01N4148M<br>QDTZ01N4148M<br>GMB01BT                      |
| D 6008   | LED SID1K10CXM or<br>LED LN66A.FN or<br>LED IR940 IR4 or<br>LED IR940 IR5                                                                     | QP4ZD1K10CXM<br>QP7Z000LN66A<br>NP43000IR940<br>NP44000IR940 |
| D 6011   | SWITCHING DIODE 1N4148M or<br>SWITCHING DIODE 1N4148M or<br>SWITCHING DIODE GMB01-BT                                                          | NDTZ01N4148M<br>QDTZ01N4148M<br>GMB01BT                      |
| D 7001   | ZENER DIODE UZ-6.2BSB                                                                                                                         | QDTB0UZ6R2BS                                                 |
| D 7002   | ZENER DIODE UZ-6.2BSB                                                                                                                         | QDTB0UZ6R2BS                                                 |
| D 7003   | ZENER DIODE UZ-6.2BSB                                                                                                                         | QDTB0UZ6R2BS                                                 |
| D 7501   | ZENER DIODE UZ-5.1BS                                                                                                                          | QDTZ0UZ5R1BS                                                 |
| D 7502   | ZENER DIODE UZ-5.1BS                                                                                                                          | QDTZ0UZ5R1BS                                                 |
| D 7503   | ZENER DIODE UZ-5.1BS                                                                                                                          | QDTZ0UZ5R1BS                                                 |
| D 7504   | ZENER DIODE UZ-5.1BS                                                                                                                          | QDTZ0UZ5R1BS                                                 |
| ICS      |                                                                                                                                               |                                                              |
| IC1001   | PHOTOCOUPLER PC120F                                                                                                                           | QPEZ00PC120F                                                 |
| IC1002   | IC KA431Z or<br>IC KIA431 or<br>IC AN1431T-(NSC) or                                                                                           | NSZLA0ZSM001<br>NSZLA0ZJY001<br>QSBLA0ZMS001                 |

| Ref. No. | Description                                                                                                                                               | Part No.                                                     |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| IC3001   | IC L5431                                                                                                                                                  | QSZLA0ZSY004                                                 |
| IC3002   | IC, VIDEO LA7347                                                                                                                                          | QSZLA0SSY006                                                 |
| IC3101   | IC LC89972M                                                                                                                                               | QSMMA0SSY011                                                 |
| IC4001   | IC LA7311 (V-8008CM(N) only)                                                                                                                              | 14LQ528                                                      |
| IC6001   | IC:AUDIO LA7286<br>MICROCONTROLLER 8BIT<br>SY/CXP88224-101Q or<br>MICROCONTROLLER 8BIT<br>SY/CXP88224-103Q or<br>MICROCONTROLLER 8BIT<br>SY/CXP88224-104Q | QSZLA0SSY007<br>QSMQA0RSN027<br>QSMQB0RSN027<br>QSMQC0RSN027 |
| IC6002   | IC, COMPARATOR KA339 or<br>IC, COMPARATOR KIA339P                                                                                                         | NSBLA0SSM002<br>NSBLA0SJY019                                 |
| IC6003   | IC, OP-AMP. KA324 or<br>IC:OP-AMP. KIA324P DIP-14                                                                                                         | NSBLA0SSM001<br>NSBLA0SJY002                                 |
| IC6004   | IC TA7291S                                                                                                                                                | 14LW342                                                      |
| IC6005   | IC, RESET 4.2V KIA7042P(TO-92) or<br>IC:RESET PST-529D-2                                                                                                  | NSBLA0TJY016<br>14DM763Z                                     |
| IC6008   | IC:MEMORY 24LC01B/P or<br>IC ST24C01B1 or<br>IC X24C01AP                                                                                                  | NSMMA0SMH002<br>NSMMA0ZSS002<br>NSMMA0SXC002                 |
| IC7001   | ZENER DIODE UZT33MTA                                                                                                                                      | QCTZ00UZT33M                                                 |
| IC7501   | IC NJU4052BD or<br>IC UPD4052BC or<br>IC TC4052BP or<br>IC HEF4052BP                                                                                      | 14D0438<br>QSMMA0SNE004<br>QSMMA0STS003<br>NSMLA0SPH001      |
| COILS    |                                                                                                                                                           |                                                              |
| L 1002   | LINE FILTER 68MH LF-4D-683 or<br>LINE FILTER 68MH ELF-18D222FN                                                                                            | LLBG00ZKQ002<br>LLBG00ZMS006                                 |
| L 1003   | LEAD INDUCTOR 22μH-K                                                                                                                                      | LLARKLUTU220                                                 |
| L 1004   | LEAD INDUCTOR 10μH-K                                                                                                                                      | LLARKLUTU100                                                 |
| L 1005   | BEAD CORE HF70BB3.5X10X1.3                                                                                                                                | XL03010TE001                                                 |
| L 1006   | BEAD CORE HF70BB3.5X10X1.3                                                                                                                                | XL03010TE001                                                 |
| L 1007   | BEAD CORE HF70BB3.5X10X1.3                                                                                                                                | XL03010TE001                                                 |
| L 1008   | BEAD CORE HF70BB3.5X10X1.3                                                                                                                                | XL03010TE001                                                 |
| L 3001   | INDUCTOR 180μH-K-26T or<br>INDUCTOR 180μH-K-26T or<br>INDUCTOR 180μH-K                                                                                    | LLAXKDTKA181<br>LLAXKATTU181<br>LLAXKCPFG181                 |
| L 3002   | INDUCTOR 82μH-K-26T or<br>INDUCTOR 82μH-K-26T or<br>INDUCTOR 82μH-K                                                                                       | LLAXKDTKA820<br>LLAXKATTU820<br>LLAXKCPFG820                 |
| L 3003   | INDUCTOR 330μH-K-26T or<br>INDUCTOR 330μH-K                                                                                                               | LLAXKDTKA331<br>LLAXKCPFG331                                 |
| L 3004   | INDUCTOR 56μH-K-26T or<br>INDUCTOR 56μH-K-26T or<br>INDUCTOR 56μH-K                                                                                       | LLAXKDTKA560<br>LLAXKATTU560<br>LLAXKCPFG560                 |
| L 3005   | INDUCTOR 27μH-K-26T or<br>INDUCTOR 27μH-K-26T or<br>INDUCTOR 27μH-K                                                                                       | LLAXKDTKA270<br>LLAXKATTU270<br>LLAXKCPFG270                 |
| L 3006   | INDUCTOR 10μH-K-26T or<br>INDUCTOR 10μH-K-26T or<br>INDUCTOR 10μH-K                                                                                       | LLAXKDTKA100<br>LLAXKATTU100<br>LLAXKCPFG100                 |
| L 3007   | INDUCTOR 330μH-K-26T or<br>INDUCTOR 330μH-K                                                                                                               | LLAXKDTKA331<br>LLAXKCPFG331                                 |
| L 3008   | INDUCTOR 27μH-K-26T or<br>INDUCTOR 27μH-K-26T or<br>INDUCTOR 27μH-K                                                                                       | LLAXKDTKA270<br>LLAXKATTU270<br>LLAXKCPFG270                 |
| L 3009   | INDUCTOR 68μH-K-26T or<br>INDUCTOR 68μH-K-26T or<br>INDUCTOR 68μH-K                                                                                       | LLAXKDTKA680<br>LLAXKATTU680<br>LLAXKCPFG680                 |
| L 3010   | INDUCTOR 68μH-K-26T or<br>INDUCTOR 68μH-K-26T or<br>INDUCTOR 68μH-K                                                                                       | LLAXKDTKA680<br>LLAXKATTU680<br>LLAXKCPFG680                 |
| L 3012   | INDUCTOR 47μH-K-5FT or<br>INDUCTOR 47μH-K-5FT or<br>INDUCTOR 47μH-K-5FT                                                                                   | LLARKDSKA470<br>LLARKBSTU470<br>LLARKBSFS470                 |
| L 3013   | INDUCTOR 18μH-K-26T or                                                                                                                                    | LLAXKDTKA180                                                 |

| Ref. No.    | Description                                                                                                                                                             | Part No.                                                                     |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| L 3014      | INDUCTOR 18μH-K-26T or<br>INDUCTOR 18μH-K                                                                                                                               | LLAXKATTU180<br>LLAXKCPFG180                                                 |
| L 3090      | LEAD INDUCTOR 22μH-K                                                                                                                                                    | LLARKLUTU220                                                                 |
| L 3091      | PCB JUMPER D0.6-P5.0                                                                                                                                                    | JW5.0T                                                                       |
| L 6002      | INDUCTOR 10μH-K-26T or<br>INDUCTOR 10μH-K-26T or<br>INDUCTOR 10μH-K                                                                                                     | LLAXKDTKA100<br>LLAXKATTU100<br>LLAXKCPFG100                                 |
| L 7001      | INDUCTOR 100μH-K-5FT or<br>INDUCTOR 100μH-K-5FT or<br>INDUCTOR 100μH-K-5FT                                                                                              | LLARKDSKA101<br>LLARKCSTU101<br>LLARKBSFS101                                 |
| L 7002      | INDUCTOR 100μH-K-5FT or<br>INDUCTOR 100μH-K-5FT or<br>INDUCTOR 100μH-K-5FT                                                                                              | LLARKDSKA101<br>LLARKCSTU101<br>LLARKBSFS101                                 |
| TRANSISTORS |                                                                                                                                                                         |                                                                              |
| Q 1001      | TRANSISTOR 2SC4204 or<br>TRANSISTOR 2SC3576                                                                                                                             | QQSZ02SC4204<br>QQSZ02SC3576                                                 |
| Q 1002      | TRANSISTOR 2SC4517 or<br>TRANSISTOR 2SC3866                                                                                                                             | QQPZ02SC4517<br>QQPZ02SC3866                                                 |
| Q 1003      | TRANSISTOR 2SC3331(T)                                                                                                                                                   | QSC3331TNPAA                                                                 |
| Q 1501      | TRANSISTOR KTC3199(GR) or<br>TRANSISTOR KSC2785(Y) or<br>TRANSISTOR 2SC536SP(E) or<br>TRANSISTOR 2SC536SP(F)                                                            | NQS10KTC3199<br>NQS10KSC2785<br>C536SEZ<br>C536SFZ                           |
| Q 1502      | TRANSISTOR 2SD1581(K) or<br>TRANSISTOR 2SD1581(L) or<br>TRANSISTOR 2SD1581(M) or<br>TRANSISTOR 2SC3246(J) or<br>TRANSISTOR 2SC3246(K)                                   | QQPK02SD1581<br>QQPL02SD1581<br>QQPM02SD1581<br>QQQJ02SC3246<br>QQQK02SC3246 |
| Q 1503      | RES. BUILT-IN TRANSISTOR KSR2205 or<br>RES. BUILT-IN TRANSISTOR 2SA1654                                                                                                 | NQSZ0KSR2205<br>QQSZ02SA1654                                                 |
| Q 1506      | TRANSISTOR KTA1266(GR) or<br>TRANSISTOR 2SA1317(S) or<br>TRANSISTOR 2SA1317(T)                                                                                          | NQS40KTA1266<br>A1317SZ<br>A1317TZ                                           |
| Q 1507      | RES. BUILT-IN TRANSISTOR KRC103M or<br>RES. BUILT-IN TRANSISTOR KSR1203 or<br>RES. BUILT-IN TRANSISTOR 2SC3400                                                          | NQSZ0KRC103M<br>NQSZ0KSR1203<br>C3400Z                                       |
| Q 3001      | TRANSISTOR KTC3199(GR) or<br>TRANSISTOR KSC2785(Y) or<br>TRANSISTOR 2SC536SP(E) or<br>TRANSISTOR 2SC536SP(F)                                                            | NQS10KTC3199<br>NQS10KSC2785<br>C536SEZ<br>C536SFZ                           |
| Q 3003      | TRANSISTOR 2SC3193(Y) or<br>TRANSISTOR 2SC2839(E) or<br>TRANSISTOR 2SC2839(F)                                                                                           | NQSY02SC3193<br>C2839EZ<br>C2839FZ                                           |
| Q 3004      | TRANSISTOR 2SC3193(Y) or<br>TRANSISTOR 2SC2839(E) or<br>TRANSISTOR 2SC2839(F)                                                                                           | NQSY02SC3193<br>C2839EZ<br>C2839FZ                                           |
| Q 3007      | TRANSISTOR KTA1267(GR) or<br>TRANSISTOR KSA1175(Y) or<br>TRANSISTOR 2SA608SP(E) or<br>TRANSISTOR 2SA608SP(F)                                                            | NQS10KTA1267<br>NQSY0KSA1175<br>A608SEZ<br>A608SFZ                           |
| Q 3009      | TRANSISTOR KTA1267(GR) or<br>TRANSISTOR KSA1175(Y) or<br>TRANSISTOR 2SA608SP(E) or<br>TRANSISTOR 2SA608SP(F)                                                            | NQS10KTA1267<br>NQSY0KSA1175<br>A608SEZ<br>A608SFZ                           |
| Q 3010      | TRANSISTOR KTA1267(GR) or<br>TRANSISTOR KSA1175(Y) or<br>TRANSISTOR 2SA608SP(E) or<br>TRANSISTOR 2SA608SP(F)                                                            | NQS10KTA1267<br>NQSY0KSA1175<br>A608SEZ<br>A608SFZ                           |
| Q 3011      | RES. BUILT-IN TRANSISTOR KRA109M (V-8008SA(N) only) or<br>RES. BUILT-IN TRANSISTOR KSR2208 (V-8008SA(N) only) or<br>RES. BUILT-IN TRANSISTOR 2SA1347 (V-8008SA(N) only) | NQSZ0KRA109M<br>NQSZ0KSR2208<br>QQSZ02SA1347                                 |

| Ref. No.  | Description                                                                                                    | Part No.                                           |
|-----------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| Q 3012    | RES. BUILT-IN TRANSISTOR KRC103M or<br>RES. BUILT-IN TRANSISTOR KSR1203 or<br>RES. BUILT-IN TRANSISTOR 2SC3400 | NQSZ0KRC103M<br>NQSZ0KSR1203<br>C3400Z             |
| Q 3013    | TRANSISTOR 2SC3193(Y) or<br>TRANSISTOR 2SC2839(E) or<br>TRANSISTOR 2SC2839(F)                                  | NQSY02SC3193<br>C2839EZ<br>C2839FZ                 |
| Q 3090    | TRANSISTOR KTA1266(GR) or<br>TRANSISTOR 2SA1317(S) or<br>TRANSISTOR 2SA1317(T)                                 | NQS40KTA1266<br>A1317SZ<br>A1317TZ                 |
| Q 4001    | TRANSISTOR 2SC3331(T)                                                                                          | QSC3331TNPAA                                       |
| Q 4002    | TRANSISTOR KTA1267(GR) or<br>TRANSISTOR KSA1175(Y) or<br>TRANSISTOR 2SA608SP(E) or<br>TRANSISTOR 2SA608SP(F)   | NQS10KTA1267<br>NQSY0KSA1175<br>A608SEZ<br>A608SFZ |
| Q 4003    | TRANSISTOR KTC3199(GR) or<br>TRANSISTOR KSC2785(Y) or<br>TRANSISTOR 2SC536SP(E) or<br>TRANSISTOR 2SC536SP(F)   | NQS10KTC3199<br>NQS10KSC2785<br>C536SEZ<br>C536SFZ |
| Q 4004    | RES. BUILT-IN TRANSISTOR KRC103M or<br>RES. BUILT-IN TRANSISTOR KSR1203 or<br>RES. BUILT-IN TRANSISTOR 2SC3400 | NQSZ0KRC103M<br>NQSZ0KSR1203<br>C3400Z             |
| Q 6002    | TRANSISTOR KTA1267(GR) or<br>TRANSISTOR KSA1175(Y) or<br>TRANSISTOR 2SA608SP(E) or<br>TRANSISTOR 2SA608SP(F)   | NQS10KTA1267<br>NQSY0KSA1175<br>A608SEZ<br>A608SFZ |
| Q 6006    | TRANSISTOR KTC3199(GR) or<br>TRANSISTOR KSC2785(Y) or<br>TRANSISTOR 2SC536SP(E) or<br>TRANSISTOR 2SC536SP(F)   | NQS10KTC3199<br>NQS10KSC2785<br>C536SEZ<br>C536SFZ |
| Q 6007    | PHOTO TRANSISTOR PT380FB                                                                                       | QP4B00PT380F                                       |
| Q 6008    | PHOTO TRANSISTOR PT380FB                                                                                       | QP4B00PT380F                                       |
| Q 7001    | TRANSISTOR KTC3199(GR) or<br>TRANSISTOR KSC2785(Y) or<br>TRANSISTOR 2SC536SP(E) or<br>TRANSISTOR 2SC536SP(F)   | NQS10KTC3199<br>NQS10KSC2785<br>C536SEZ<br>C536SFZ |
| Q 7002    | RES. BUILT-IN TRANSISTOR KSR2205 or<br>RES. BUILT-IN TRANSISTOR 2SA1654                                        | NQSZ0KSR2205<br>QQSZ02SA1654                       |
| Q 7003    | RES. BUILT-IN TRANSISTOR KSR2205 or<br>RES. BUILT-IN TRANSISTOR 2SA1654                                        | NQSZ0KSR2205<br>QQSZ02SA1654                       |
| Q 7004    | RES. BUILT-IN TRANSISTOR KSR2205 or<br>RES. BUILT-IN TRANSISTOR 2SA1654                                        | NQSZ0KSR2205<br>QQSZ02SA1654                       |
| Q 7007    | TRANSISTOR KTC3199(GR) or<br>TRANSISTOR KSC2785(Y) or<br>TRANSISTOR 2SC536SP(E) or<br>TRANSISTOR 2SC536SP(F)   | NQS10KTC3199<br>NQS10KSC2785<br>C536SEZ<br>C536SFZ |
| RESISTORS |                                                                                                                |                                                    |
| R 1001    | FIXED METAL OXIDE FILM RES. 2W J 4.7 Ω                                                                         | RN024R7KE005                                       |
| R 1002    | FIXED METAL OXIDE FILM RES. 2W J 82K Ω or<br>FIXED METAL OXIDE FILM RES. 2W J 82K Ω                            | RN02JZP0823<br>1330513                             |
| R 1004    | CARBON RES. 1/4W J 56K Ω                                                                                       | RCX4JATZ0563                                       |
| R 1005    | CARBON RES. 1/4W J 56K Ω                                                                                       | RCX4JATZ0563                                       |
| R 1006    | CARBON RES. 1/4W J 56K Ω                                                                                       | RCX4JATZ0563                                       |
| R 1007    | CARBON RES. 1/4W J 56K Ω                                                                                       | RCX4JATZ0563                                       |
| R 1008    | CARBON RES. 1/4W J 39 Ω                                                                                        | RCX4JATZ0390                                       |
| R 1009    | CARBON RES. 1/4W J 39 Ω                                                                                        | RCX4JATZ0390                                       |
| R 1010    | CARBON RES. 1/4W J 39 Ω                                                                                        | RCX4JATZ0390                                       |
| R 1011    | CARBON RES. 1/4W J 3.9K Ω                                                                                      | RCX4JATZ0392                                       |
| R 1012    | CARBON RES. 1/4W J 220 Ω                                                                                       | RCX4JATZ0221                                       |
| R 1013    | CARBON RES. 1/4W J 47K Ω                                                                                       | RCX4JATZ0473                                       |
| R 1014    | CARBON RES. 1/4W J 47K Ω                                                                                       | RCX4JATZ0473                                       |
| R 1015    | CARBON RES. 1/4W J 47K Ω                                                                                       | RCX4JATZ0473                                       |
| R 1016    | CARBON RES. 1/4W J 47K Ω                                                                                       | RCX4JATZ0473                                       |
| R 1017    | CARBON RES. 1/4W J 2.7K Ω                                                                                      | RCX4JATZ0272                                       |
| R 1018    | CARBON RES. 1/4W J 2.2 Ω                                                                                       | RCX4JATZ02R2                                       |
| R 1019    | CARBON RES. 1/4W J 2.2 Ω                                                                                       | RCX4JATZ02R2                                       |

| Ref. No. | Description                                  | Part No.     |
|----------|----------------------------------------------|--------------|
| R 1020   | CARBON RES. 1/4W J 470 Ω                     | RCX4JATZ0471 |
| R 1021   | CARBON RES. 1/4W J 1K Ω                      | RCX4JATZ0102 |
| R 1022   | CARBON RES. 1/4W J 47 Ω                      | RCX4JATZ0470 |
| R 1023   | CARBON RES. 1/4W G 3K Ω                      | RCX4GATZ0302 |
| R 1024   | CARBON RES. 1/4W J 820 Ω                     | RCX4JATZ0821 |
| R 1025   | CARBON RES. 1/4W J 2.2K Ω                    | RCX4GATZ0222 |
| R 1026   | CARBON RES. 1/4W J 680 Ω                     | RCX4JATZ0681 |
| R 1027   | CARBON RES. 1/4W J 680 Ω                     | RCX4JATZ0681 |
| R 1028   | CARBON RES. 1/4W J 1K Ω                      | RCX4JATZ0102 |
| R 1029   | CARBON RES. 1/4W J 1K Ω                      | RCX4JATZ0102 |
| R 1501   | CARBON RES. 1/4W J 4.7K Ω                    | RCX4JATZ0472 |
| R 1502   | CARBON RES. 1/4W J 15K Ω                     | RCX4JATZ0153 |
| R 1504   | CARBON RES. 1/4W J 4.7K Ω                    | RCX4JATZ0472 |
| R 1505   | CARBON RES. 1/4W J 4.7K Ω                    | RCX4JATZ0472 |
| R 1506   | PCB JUMPER D0.6-P5.0                         | JW5.0T       |
| R 1512   | CARBON RES. 1/4W J 10K Ω                     | RCX4JATZ0103 |
| R 1514   | CARBON RES. 1/4W J 47K Ω                     | RCX4JATZ0473 |
| R 1515   | CARBON RES. 1/4W J 1K Ω                      | RCX4JATZ0102 |
| R 3001   | CARBON RES. 1/4W J 1.5K Ω                    | RCX4JATZ0152 |
| R 3002   | CARBON RES. 1/4W J 1K Ω                      | RCX4JATZ0102 |
| R 3003   | CARBON RES. 1/4W J 470 Ω                     | RCX4JATZ0471 |
| R 3004   | CARBON RES. 1/4W J 3.9K Ω                    | RCX4JATZ0392 |
| R 3005   | CARBON RES. 1/4W J 1.5K Ω                    | RCX4JATZ0152 |
| R 3006   | CARBON RES. 1/4W J 3.9K Ω                    | RCX4JATZ0392 |
| R 3007   | CARBON RES. 1/4W J 1.2K Ω (V-8008CM(N) only) | RCX4JATZ0122 |
| R 3007   | CARBON RES. 1/4W J 1.2K Ω (V-8008SA(N) only) | RCX4JATZ0152 |
| R 3008   | CARBON RES. 1/4W J 5.6K Ω                    | RCX4JATZ0562 |
| R 3009   | CARBON RES. 1/4W J 8.2K Ω                    | RCX4JATZ0822 |
| R 3010   | CARBON RES. 1/4W J 22K Ω                     | RCX4JATZ0223 |
| R 3011   | CARBON RES. 1/4W J 10K Ω                     | RCX4JATZ0103 |
| R 3012   | CARBON RES. 1/4W J 3.9K Ω                    | RCX4JATZ0392 |
| R 3013   | CARBON RES. 1/4W J 100 Ω                     | RCX4JATZ0101 |
| R 3014   | CARBON RES. 1/4W J 2.2K Ω                    | RCX4JATZ0222 |
| R 3016   | CARBON RES. 1/4W J 1K Ω                      | RCX4JATZ0102 |
| R 3017   | CARBON RES. 1/4W J 390 Ω                     | RCX4JATZ0391 |
| R 3018   | CARBON RES. 1/4W J 390 Ω                     | RCX4JATZ0391 |
| R 3019   | CARBON RES. 1/4W J 1K Ω                      | RCX4JATZ0102 |
| R 3020   | CARBON RES. 1/4W J 680 Ω                     | RCX4JATZ0681 |
| R 3021   | CARBON RES. 1/4W J 820 Ω (V-8008CM(N) only)  | RCX4JATZ0821 |
| R 3022   | CARBON RES. 1/4W J 330 Ω                     | RCX4JATZ0331 |
| R 3024   | CARBON RES. 1/4W J 27K Ω                     | RCX4JATZ0273 |
| R 3025   | CARBON RES. 1/4W J 8.2K Ω                    | RCX4JATZ0822 |
| R 3026   | CARBON RES. 1/4W J 5.6K Ω                    | RCX4JATZ0562 |
| R 3027   | CARBON RES. 1/4W J 470 Ω                     | RCX4JATZ0471 |
| R 3028   | CARBON RES. 1/4W J 2.7K Ω                    | RCX4JATZ0272 |
| R 3029   | CARBON RES. 1/4W J 10K Ω                     | RCX4JATZ0103 |
| R 3030   | CARBON RES. 1/4W J 470 Ω                     | RCX4JATZ0471 |
| R 3031   | CARBON RES. 1/4W J 2.7K Ω                    | RCX4JATZ0272 |
| R 3032   | CARBON RES. 1/4W J 10K Ω (V-8008CM(N) only)  | RCX4JATZ0103 |
| R 3032   | CARBON RES. 1/4W J 15K Ω (V-8008SA(N) only)  | RCX4JATZ0153 |
| R 3033   | CARBON RES. 1/4W J 680 Ω                     | RCX4JATZ0681 |
| R 3034   | PCB JUMPER D0.6-P5.0 (V-8008CM(N) only)      | JW5.0T       |
| R 3034   | CARBON RES. 1/4W J 100 Ω (V-8008SA(N) only)  | RCX4JATZ0101 |
| R 3035   | CARBON RES. 1/4W J 470 Ω                     | RCX4JATZ0471 |
| R 3036   | CARBON RES. 1/4W J 2.2K Ω                    | RCX4JATZ0222 |
| R 3037   | CARBON RES. 1/4W J 22K Ω (V-8008SA(N) only)  | RCX4JATZ0223 |
| R 3038   | CARBON RES. 1/4W J 4.7K Ω                    | RCX4JATZ0472 |
| R 3039   | CARBON RES. 1/4W J 1.8K Ω                    | RCX4JATZ0182 |
| R 3040   | CARBON RES. 1/4W J 470 Ω                     | RCX4JATZ0471 |
| R 3041   | CARBON RES. 1/4W J 470 Ω                     | RCX4JATZ0471 |
| R 3042   | CARBON RES. 1/4W J 2.7K Ω                    | RCX4JATZ0272 |

| Ref. No. | Description                                  | Part No.     |
|----------|----------------------------------------------|--------------|
| R 3043   | CARBON RES. 1/4W J 2.7K Ω                    | RCX4JATZ0272 |
| R 3044   | CARBON RES. 1/4W J 2.7K Ω                    | RCX4JATZ0272 |
| R 3045   | CARBON RES. 1/4W J 560 Ω                     | RCX4JATZ0561 |
| R 3046   | CARBON RES. 1/4W J 390 Ω                     | RCX4JATZ0391 |
| R 3047   | CARBON RES. 1/4W J 1.8K Ω                    | RCX4JATZ0182 |
| R 3053   | CARBON RES. 1/4W J 1M Ω                      | RCX4JATZ0105 |
| R 3054   | CARBON RES. 1/4W J 8.2K Ω                    | RCX4JATZ0822 |
| R 3056   | CARBON RES. 1/4W J 22K Ω                     | RCX4JATZ0223 |
| R 3057   | CARBON RES. 1/4W J 820 Ω                     | RCX4JATZ0821 |
| R 3058   | CARBON RES. 1/4W J 1K Ω                      | RCX4JATZ0102 |
| R 3059   | CARBON RES. 1/4W J 1K Ω                      | RCX4JATZ0102 |
| R 3060   | CARBON RES. 1/4W J 270 Ω                     | RCX4JATZ0271 |
| R 3061   | CARBON RES. 1/4W J 270 Ω                     | RCX4JATZ0271 |
| R 3062   | CARBON RES. 1/4W J 1K Ω                      | RCX4JATZ0102 |
| R 3063   | CARBON RES. 1/4W J 82K Ω                     | RCX4JATZ0823 |
| R 3064   | CARBON RES. 1/4W J 1K Ω                      | RCX4JATZ0102 |
| R 3066   | CARBON RES. 1/4W J 5.6K Ω                    | RCX4JATZ0562 |
| R 3067   | CARBON RES. 1/4W J 2.7K Ω                    | RCX4JATZ0272 |
| R 3068   | CARBON RES. 1/4W J 10K Ω                     | RCX4JATZ0103 |
| R 3090   | CARBON RES. 1/4W J 680 Ω                     | RCX4JATZ0681 |
| R 3091   | CARBON RES. 1/4W J 680 Ω                     | RCX4JATZ0681 |
| R 3092   | CARBON RES. 1/4W J 220 Ω                     | RCX4JATZ0221 |
| R 3101   | CARBON RES. 1/4W J 4.3K Ω (V-8008CM(N) only) | RCX4JATZ0432 |
| R 3102   | CARBON RES. 1/4W J 1.5K Ω (V-8008CM(N) only) | RCX4JATZ0152 |
| R 3103   | CARBON RES. 1/4W J 1M Ω (V-8008CM(N) only)   | RCX4JATZ0105 |
| R 3104   | CARBON RES. 1/4W J 1M Ω (V-8008CM(N) only)   | RCX4JATZ0105 |
| R 3105   | CARBON RES. 1/4W J 22K Ω (V-8008CM(N) only)  | RCX4JATZ0223 |
| R 3106   | CARBON RES. 1/4W J 820 Ω (V-8008CM(N) only)  | RCX4JATZ0821 |
| R 3107   | CARBON RES. 1/4W J 2.7K Ω (V-8008CM(N) only) | RCX4JATZ0272 |
| R 3108   | CARBON RES. 1/4W J 2.2K Ω (V-8008CM(N) only) | RCX4JATZ0222 |
| R 4002   | CARBON RES. 1/4W J 22K Ω                     | RCX4JATZ0223 |
| R 4003   | CARBON RES. 1/4W J 330K Ω                    | RCX4JATZ0334 |
| R 4004   | CARBON RES. 1/4W J 12K Ω                     | RCX4JATZ0123 |
| R 4005   | CARBON RES. 1/4W J 120 Ω                     | RCX4JATZ0121 |
| R 4006   | CARBON RES. 1/4W J 5.6K Ω                    | RCX4JATZ0562 |
| R 4007   | CARBON RES. 1/4W J 1.8M Ω                    | RCX4JATZ0185 |
| R 4008   | CARBON RES. 1/4W J 15K Ω                     | RCX4JATZ0153 |
| R 4009   | CARBON RES. 1/4W J 6.8K Ω                    | RCX4JATZ0682 |
| R 4010   | CARBON RES. 1/4W J 150 Ω                     | RCX4JATZ0151 |
| R 4011   | CARBON RES. 1/4W J 1.8K Ω                    | RCX4JATZ0182 |
| R 4012   | CARBON RES. 1/4W J 1.8K Ω                    | RCX4JATZ0182 |
| R 4013   | CARBON RES. 1/4W J 1K Ω                      | RCX4JATZ0102 |
| R 4014   | CARBON RES. 1/4W J 2.2K Ω                    | RCX4JATZ0222 |
| R 4018   | CARBON RES. 1/4W J 22 Ω                      | RCX4JATZ0220 |
| R 4019   | CARBON RES. 1/4W J 47 Ω                      | RCX4JATZ0470 |
| R 4020   | CARBON RES. 1/4W J 4.7K Ω                    | RCX4JATZ0472 |
| R 4021   | CARBON RES. 1/4W J 4.7 Ω                     | RCX4JATZ047R |
| R 4022   | CARBON RES. 1/4W J 3.9K Ω                    | RCX4JATZ0392 |
| R 4023   | CARBON RES. 1/4W J 2.2K Ω                    | RCX4JATZ0222 |
| R 4024   | CARBON RES. 1/4W J 180 Ω                     | RCX4JATZ0181 |
| R 4025   | CARBON RES. 1/4W J 1K Ω                      | RCX4JATZ0102 |
| R 4027   | CARBON RES. 1/4W J 2.2K Ω                    | RCX4JATZ0222 |
| R 6001   | CARBON RES. 1/4W J 4.7K Ω                    | RCX4JATZ0472 |
| R 6003   | CARBON RES. 1/4W J 10K Ω                     | RCX4JATZ0103 |
| R 6004   | CARBON RES. 1/4W J 10K Ω                     | RCX4JATZ0103 |
| R 6006   | CARBON RES. 1/4W J 47K Ω                     | RCX4JATZ0473 |
| R 6007   | CARBON RES. 1/4W J 1K Ω                      | RCX4JATZ0102 |
| R 6009   | PCB JUMPER D0.6-P5.0                         | JW5.0T       |
| R 6011   | CARBON RES. 1/4W J 1 Ω                       | RCX4JATZ0010 |
| R 6012   | CARBON RES. 1/4W J 1 Ω                       | RCX4JATZ0010 |

| Ref. No. | Description               | Part No.     |
|----------|---------------------------|--------------|
| R 6013   | CARBON RES. 1/4W J 1 Ω    | RCX4JATZ0010 |
| R 6014   | CARBON RES. 1/4W J 10K Ω  | RCX4JATZ0103 |
| R 6015   | CARBON RES. 1/4W J 1.5K Ω | RCX4JATZ0152 |
| R 6016   | CARBON RES. 1/4W J 220 Ω  | RCX4JATZ0221 |
| R 6017   | CARBON RES. 1/4W J 22K Ω  | RCX4JATZ0223 |
| R 6018   | CARBON RES. 1/4W J 10K Ω  | RCX4JATZ0103 |
| R 6019   | CARBON RES. 1/4W J 12K Ω  | RCX4JATZ0123 |
| R 6024   | CARBON RES. 1/4W J 6.2 Ω  | RCX4JATZ06R2 |
| R 6025   | CARBON RES. 1/4W J 6.2 Ω  | RCX4JATZ06R2 |
| R 6026   | CARBON RES. 1/4W J 1.8K Ω | RCX4JATZ0182 |
| R 6027   | CARBON RES. 1/4W J 1K Ω   | RCX4JATZ0102 |
| R 6028   | CARBON RES. 1/4W J 1.2K Ω | RCX4JATZ0122 |
| R 6029   | CARBON RES. 1/4W J 1.5K Ω | RCX4JATZ0152 |
| R 6030   | CARBON RES. 1/4W J 2.2K Ω | RCX4JATZ0222 |
| R 6031   | CARBON RES. 1/4W J 3.9K Ω | RCX4JATZ0392 |
| R 6032   | CARBON RES. 1/4W J 8.2K Ω | RCX4JATZ0822 |
| R 6035   | CARBON RES. 1/4W J 4.7K Ω | RCX4JATZ0472 |
| R 6036   | CARBON RES. 1/4W J 47K Ω  | RCX4JATZ0473 |
| R 6037   | CARBON RES. 1/4W J 39K Ω  | RCX4JATZ0393 |
| R 6038   | CARBON RES. 1/4W J 2.2K Ω | RCX4JATZ0222 |
| R 6039   | CARBON RES. 1/4W J 10K Ω  | RCX4JATZ0103 |
| R 6041   | CARBON RES. 1/4W J 2.2K Ω | RCX4JATZ0222 |
| R 6042   | CARBON RES. 1/4W J 10K Ω  | RCX4JATZ0103 |
| R 6043   | CARBON RES. 1/4W J 10K Ω  | RCX4JATZ0103 |
| R 6044   | CARBON RES. 1/4W J 330K Ω | RCX4JATZ0334 |
| R 6045   | CARBON RES. 1/4W J 4.7K Ω | RCX4JATZ0472 |
| R 6046   | CARBON RES. 1/4W J 47K Ω  | RCX4JATZ0473 |
| R 6047   | CARBON RES. 1/4W J 4.7M Ω | RCX4JATZ0475 |
| R 6050   | CARBON RES. 1/4W J 470 Ω  | RCX4JATZ0471 |
| R 6051   | CARBON RES. 1/4W J 2.2K Ω | RCX4JATZ0222 |
| R 6052   | CARBON RES. 1/4W J 330K Ω | RCX4JATZ0334 |
| R 6053   | PCB JUMPER D0.6-P5.0      | JW5.0T       |
| R 6054   | CARBON RES. 1/4W J 180K Ω | RCX4JATZ0184 |
| R 6055   | CARBON RES. 1/4W J 10K Ω  | RCX4JATZ0103 |
| R 6056   | CARBON RES. 1/4W J 10K Ω  | RCX4JATZ0103 |
| R 6057   | CARBON RES. 1/4W J 10K Ω  | RCX4JATZ0103 |
| R 6058   | CARBON RES. 1/4W J 2.2K Ω | RCX4JATZ0222 |
| R 6059   | CARBON RES. 1/4W J 220K Ω | RCX4JATZ0224 |
| R 6060   | CARBON RES. 1/4W J 47K Ω  | RCX4JATZ0473 |
| R 6062   | CARBON RES. 1/4W J 6.8K Ω | RCX4JATZ0682 |
| R 6063   | CARBON RES. 1/4W J 2.7K Ω | RCX4JATZ0272 |
| R 6064   | CARBON RES. 1/4W J 680K Ω | RCX4JATZ0684 |
| R 6065   | CARBON RES. 1/4W J 820 Ω  | RCX4JATZ0821 |
| R 6066   | CARBON RES. 1/4W J 470K Ω | RCX4JATZ0474 |
| R 6067   | CARBON RES. 1/4W J 2.2K Ω | RCX4JATZ0222 |
| R 6068   | CARBON RES. 1/4W J 330K Ω | RCX4JATZ0334 |
| R 6069   | CARBON RES. 1/4W J 56 Ω   | RCX4JATZ0560 |
| R 6070   | CARBON RES. 1/4W J 56 Ω   | RCX4JATZ0560 |
| R 6071   | CARBON RES. 1/4W J 56 Ω   | RCX4JATZ0560 |
| R 6072   | CARBON RES. 1/4W J 56 Ω   | RCX4JATZ0560 |
| R 6075   | CARBON RES. 1/4W J 10K Ω  | RCX4JATZ0103 |
| R 6076   | CARBON RES. 1/4W J 82K Ω  | RCX4JATZ0823 |
| R 6077   | CARBON RES. 1/4W J 4.7K Ω | RCX4JATZ0472 |
| R 6078   | CARBON RES. 1/4W J 4.7K Ω | RCX4JATZ0472 |
| R 6079   | CARBON RES. 1/4W J 680K Ω | RCX4JATZ0684 |
| R 6080   | CARBON RES. 1/4W J 680K Ω | RCX4JATZ0684 |
| R 6083   | CARBON RES. 1/4W J 47K Ω  | RCX4JATZ0473 |
| R 6084   | CARBON RES. 1/4W J 150 Ω  | RCX4JATZ0151 |
| R 6085   | CARBON RES. 1/4W J 22K Ω  | RCX4JATZ0223 |
| R 6086   | CARBON RES. 1/4W J 22K Ω  | RCX4JATZ0223 |
| R 6087   | CARBON RES. 1/4W J 22K Ω  | RCX4JATZ0223 |
| R 6088   | CARBON RES. 1/4W J 22K Ω  | RCX4JATZ0223 |
| R 6102   | CARBON RES. 1/4W J 10K Ω  | RCX4JATZ0103 |
| R 6104   | CARBON RES. 1/4W J 10K Ω  | RCX4JATZ0103 |
| R 6105   | CARBON RES. 1/4W J 4.7K Ω | RCX4JATZ0472 |
| R 6108   | CARBON RES. 1/4W J 10K Ω  | RCX4JATZ0103 |

| Ref. No. | Description                                                                                                                                                      | Part No.                                                                     |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| R 6112   | CARBON RES. 1/4W J 10K Ω                                                                                                                                         | RCX4JATZ0103                                                                 |
| R 6113   | CARBON RES. 1/4W J 10K Ω                                                                                                                                         | RCX4JATZ0103                                                                 |
| R 6115   | CARBON RES. 1/4W J 10K Ω (V-8008SA(N) only)                                                                                                                      | RCX4JATZ0103                                                                 |
| R 6116   | CARBON RES. 1/4W J 10K Ω (V-8008CM(N) only)                                                                                                                      | RCX4JATZ0103                                                                 |
| R 6118   | CARBON RES. 1/4W J 22K Ω                                                                                                                                         | RCX4JATZ0223                                                                 |
| R 6119   | CARBON RES. 1/4W J 10K Ω (V-8008CM(N) only)                                                                                                                      | RCX4JATZ0103                                                                 |
| R 6120   | CARBON RES. 1/4W J 10K Ω (V-8008SA(N) only)                                                                                                                      | RCX4JATZ0103                                                                 |
| R 6121   | CARBON RES. 1/4W J 10K Ω (V-8008SA(N) only)                                                                                                                      | RCX4JATZ0103                                                                 |
| R 6122   | CARBON RES. 1/4W J 10K Ω (V-8008CM(N) only)                                                                                                                      | RCX4JATZ0103                                                                 |
| R 6123   | CARBON RES. 1/4W J 10K Ω                                                                                                                                         | RCX4JATZ0103                                                                 |
| R 6133   | CARBON RES. 1/4W J 18K Ω                                                                                                                                         | RCX4JATZ0183                                                                 |
| R 6134   | CARBON RES. 1/4W J 18K Ω                                                                                                                                         | RCX4JATZ0183                                                                 |
| R 6136   | CARBON RES. 1/4W J 10K Ω                                                                                                                                         | RCX4JATZ0103                                                                 |
| R 6137   | CARBON RES. 1/4W J 10K Ω                                                                                                                                         | RCX4JATZ0103                                                                 |
| R 6140   | CARBON RES. 1/4W J 10K Ω                                                                                                                                         | RCX4JATZ0103                                                                 |
| R 6141   | CARBON RES. 1/4W J 10K Ω                                                                                                                                         | RCX4JATZ0103                                                                 |
| R 6142   | CARBON RES. 1/4W J 22K Ω                                                                                                                                         | RCX4JATZ0223                                                                 |
| R 6143   | CARBON RES. 1/4W J 4.7K Ω                                                                                                                                        | RCX4JATZ0472                                                                 |
| R 7001   | CARBON RES. 1/4W J 47K Ω                                                                                                                                         | RCX4JATZ0473                                                                 |
| R 7002   | CARBON RES. 1/4W J 1K Ω                                                                                                                                          | RCX4JATZ0102                                                                 |
| R 7003   | CARBON RES. 1/4W J 33K Ω                                                                                                                                         | RCX4JATZ0333                                                                 |
| R 7004   | CARBON RES. 1/4W J 1.5K Ω                                                                                                                                        | RCX4JATZ0152                                                                 |
| R 7005   | CARBON RES. 1/4W J 10K Ω                                                                                                                                         | RCX4JATZ0103                                                                 |
| R 7006   | CARBON RES. 1/4W J 15K Ω                                                                                                                                         | RCX4JATZ0153                                                                 |
| R 7007   | CARBON RES. 1/4W J 27K Ω                                                                                                                                         | RCX4JATZ0273                                                                 |
| R 7008   | CARBON RES. 1/4W J 27K Ω                                                                                                                                         | RCX4JATZ0273                                                                 |
| R 7009   | CARBON RES. 1/4W J 39K Ω                                                                                                                                         | RCX4JATZ0393                                                                 |
| R 7010   | CARBON RES. 1/4W J 15K Ω                                                                                                                                         | RCX4JATZ0153                                                                 |
| R 7011   | CARBON RES. 1/4W J 560K Ω                                                                                                                                        | RCX4JATZ0564                                                                 |
| R 7012   | CARBON RES. 1/4W J 560K Ω                                                                                                                                        | RCX4JATZ0564                                                                 |
| R 7013   | CARBON RES. 1/4W J 75 Ω                                                                                                                                          | RCX4JATZ0750                                                                 |
| R 7016   | CARBON RES. 1/4W J 10K Ω                                                                                                                                         | RCX4JATZ0103                                                                 |
| R 7017   | CARBON RES. 1/4W J 100K Ω                                                                                                                                        | RCX4JATZ0104                                                                 |
| R 7021   | CARBON RES. 1/4W J 330K Ω                                                                                                                                        | RCX4JZP0334                                                                  |
| R 7022   | CARBON RES. 1/4W J 330K Ω                                                                                                                                        | RCX4JATZ0334                                                                 |
| R 7501   | CARBON RES. 1/4W J 22K Ω                                                                                                                                         | RCX4JATZ0223                                                                 |
| R 7502   | CARBON RES. 1/4W J 100K Ω                                                                                                                                        | RCX4JATZ0104                                                                 |
| R 7503   | CARBON RES. 1/4W J 10K Ω                                                                                                                                         | RCX4JATZ0103                                                                 |
| R 7504   | CARBON RES. 1/4W J 75 Ω                                                                                                                                          | RCX4JATZ0750                                                                 |
| R 7505   | CARBON RES. 1/4W J 68 Ω                                                                                                                                          | RCX4JATZ0680                                                                 |
| R 7506   | CARBON RES. 1/4W J 150 Ω                                                                                                                                         | RCX4JATZ0151                                                                 |
| R 7507   | CARBON RES. 1/4W J 150 Ω                                                                                                                                         | RCX4JATZ0151                                                                 |
| R 7509   | CARBON RES. 1/4W J 22K Ω                                                                                                                                         | RCX4JATZ0223                                                                 |
| R 7510   | CARBON RES. 1/4W J 820 Ω                                                                                                                                         | RCX4JATZ0821                                                                 |
| SWITCHES |                                                                                                                                                                  |                                                                              |
| SW6002   | TACT SWITCH TS-1230BM or<br>TACT SWITCH KSM0614B or<br>TACT SWITCH DHT-1102C or<br>TACT SWITCH KPT-1105BM or<br>TACT SWITCH EVQ PAC 09K or                       | SST0101VK002<br>SST0101HH013<br>SST0101LJ001<br>SST0101JP001<br>SST0101MS017 |
| SW6004   | TACT SWITCH SKHHAP                                                                                                                                               | SST0101AL028                                                                 |
| SW6004   | TACT SWITCH TS-1230BM or<br>TACT SWITCH KSM0614B or<br>TACT SWITCH DHT-1102C or<br>TACT SWITCH KPT-1105BM or<br>TACT SWITCH EVQ PAC 09K or<br>TACT SWITCH SKHHAP | SST0101VK002<br>SST010                                                       |

| Ref. No.            | Description                     | Part No.     |
|---------------------|---------------------------------|--------------|
| SW6006              | TACT SWITCH EVQ PAC 09K or      | SST0101MS017 |
|                     | TACT SWITCH SKHHAP              | SST0101AL028 |
|                     | TACT SWITCH TS-1230BM or        | SST0101VK002 |
|                     | TACT SWITCH KSM0614B or         | SST0101HH013 |
|                     | TACT SWITCH DHT-1102C or        | SST0101LJ001 |
| SW6007              | TACT SWITCH KPT-1105BM or       | SST0101JP001 |
|                     | TACT SWITCH EVQ PAC 09K or      | SST0101MS017 |
|                     | TACT SWITCH SKHHAP              | SST0101AL028 |
|                     | TACT SWITCH TS-1230BM or        | SST0101VK002 |
|                     | TACT SWITCH KSM0614B or         | SST0101HH013 |
| SW6008              | TACT SWITCH DHT-1102C or        | SST0101LJ001 |
|                     | TACT SWITCH KPT-1105BM or       | SST0101JP001 |
|                     | TACT SWITCH EVQ PAC 09K or      | SST0101MS017 |
|                     | TACT SWITCH SKHHAP              | SST0101AL028 |
|                     | TACT SWITCH TS-1230BM or        | SST0101VK002 |
| SW6009              | TACT SWITCH KSM0614B or         | SST0101HH013 |
|                     | TACT SWITCH DHT-1102C or        | SST0101LJ001 |
|                     | TACT SWITCH KPT-1105BM or       | SST0101JP001 |
|                     | TACT SWITCH EVQ PAC 09K or      | SST0101MS017 |
|                     | TACT SWITCH SKHHAP              | SST0101AL028 |
| SW6012              | PUSH SWITCH SPPB61 or           | SSP0102AL001 |
|                     | PUSH SWITCH JPS1120-0601H       | SSP0102SR001 |
| VARIABLE RESISTORS  |                                 |              |
| VR3001              | CARBON P.O.T. 4.7K Ω B or       | 638A472      |
| VR3002              | CARBON P.O.T. 5K Ω B or         | VRCB502HH005 |
|                     | CARBON P.O.T. 5K Ω B            | 138J780      |
| VR3003              | CARBON P.O.T. 4.7K Ω B or       | 638A472      |
|                     | CARBON P.O.T. 5K Ω B or         | VRCB502HH005 |
| VR6001              | CARBON P.O.T. 5K Ω B            | 138J780      |
|                     | CARBON P.O.T. 4.7K Ω B or       | 638A472      |
| VR3003              | CARBON P.O.T. 5K Ω B or         | VRCB502HH005 |
|                     | CARBON P.O.T. 5K Ω B            | 138J780      |
| VR6001              | CARBON P.O.T. 100K Ω B or       | 638A104      |
|                     | CARBON P.O.T. 100K Ω B or       | VRCB104HH005 |
| VR3001              | CARBON P.O.T. 100K Ω B          | 138J785      |
|                     | CARBON P.O.T. 100K Ω B          | 138J785      |
| CRYSTAL OSCILLATORS |                                 |              |
| X 3001              | X'TAL 4.433619MHZ or            | 1811388      |
|                     | X'TAL 4.433619MHZ or            | 1811366      |
| X 6001              | X'TAL 4.433619MHZ               | FXC445LGM001 |
|                     | X'TAL 12MHZ or                  | FXE126LFS001 |
| X 6002              | X'TAL 12MHZ or                  | FXE126LCU002 |
|                     | X'TAL 12MHZ or                  | FXE126LDS011 |
| X 6002              | X'TAL 12MHZ                     | FXE126LGM001 |
|                     | X'TAL 32KHZ(10PPM)              | 1811350      |
| MISCELLANEOUS       |                                 |              |
| 2B 4                | WIRE TIE PLT.7M                 | 1790571      |
|                     | LEAD CLAMPER or                 | 1790356      |
| 2B 5                | LEAD CLAMPER GT-80M             | XF00080HL001 |
| 2B 8                | HOLDER, F.I.P.(L)               | 0VM301820    |
| 2B 9                | HOLDER, F.I.P.(R)               | 0VM301821    |
| 2B 10               | BUSH, LED                       | 6N50114      |
| 2L 034              | HOLDER, L.E.D.                  | 0VM405711    |
| 2L 071              | HEATSINK                        | 0VM406060    |
| 2L 081              | SCREW, A-TIGHT M3X10 BIND HEAD+ | DBM13100     |
| A 17                | SCREW, S-TIGHT M3X5 BIND HEAD+  | GBMS3050     |
| AC1001              | SCREW, P-TIGHT 3X10 BIND HEAD+  | GBKP3100     |
|                     | JACK BOARD U9-PAL-RCA(BG/DK)    | 0VM201605    |
| AC1001              | AC CORD LA-1296-2 or            | WAE0202LW006 |
|                     | AC CORD EP-631-E01 or           | WAE0202NW008 |
| AC1001              | AC CORD                         | WAE0202BX001 |

| Ref. No. | Description                    | Part No.     |
|----------|--------------------------------|--------------|
| F 1001   | FUSE T1.60AH250V or            | PAGC20BAG162 |
| FH1001   | FUSE T1.60AH250V               | PBGZ20CDX006 |
|          | FUSE HOLDER FH-V-03078-1 or    | XH01Z00DK002 |
| FH1002   | HOLDER, FUSE CNT41-0014        | 1790424      |
|          | FUSE HOLDER FH-V-03078-1 or    | XH01Z00DK002 |
| FP6001   | HOLDER, FUSE CNT41-0014        | 1790424      |
|          | F.I.P. 10-BT-121G              | TVFD1C0FT025 |
| PS6001   | REEL SENSOR GP1S38 or          | PCZLAZZSH001 |
|          | REEL SENSOR SG-224             | PCZLAZZKK004 |
| SN6001   | DEW SENSOR EYHS-10R4           | PCZHUMZMS004 |
| T 1001   | LTT00ZPSA009                   | LTT00ZPSA009 |
| T 4001   | COIL, OSC 7QM3 C-14284A or     | LFA07V0VD001 |
|          | COIL, OSC K7-J1 R12 N657X      | LFA07V0MM038 |
| TU7001   | UTUNPSDNE002                   | UTUNPSDNE002 |
| TU7001   | TUNER/IF/CONV. UNIT EC-RB-0164 | UTUNPSLNE002 |
|          | (V-8008CM(N) only)             |              |
| TU7001   | TUNER/IF/CONV. UNIT EC-RB-0165 | UTUNPSLNE002 |
|          | (V-8008SA(N) only)             |              |
| W 01     | WIRE                           | WX3801A84404 |

REMOTE SENSOR CBA (MCV-C)

| Ref. No. | Description                    | Part No.     |
|----------|--------------------------------|--------------|
|          | REMOTE SENSOR (MCV-C) CBA      | -----        |
|          | Consists of the following:     |              |
| RS6001   | REMOTE CONTROL UNIT NJH32H367A | USESJRSJR004 |

REMOTE SENSOR CBA (MCV-D)

| Ref. No. | Description                    | Part No.     |
|----------|--------------------------------|--------------|
|          | REMOTE SENSOR (MCV-D) CBA      | -----        |
|          | Consists of the following:     |              |
| RS6001   | REMOTE CONTROL UNIT HC-278N or | USESJRSKK008 |
|          | REMOTE CONTROL UNIT GP1U582X   | USESJRSSH009 |

FUNCTION CBA (FNT)

| Ref. No.         | Description                                             | Part No.     |
|------------------|---------------------------------------------------------|--------------|
|                  | <b>FUNCTION (FNT) CBA</b><br>Consists of the following: | 0VSA06693    |
| <b>CONNECTOR</b> |                                                         |              |
| CN5501           | HINGED SOCKET CONNECTOR 4P                              | JCTRG04TG002 |
| <b>RESISTORS</b> |                                                         |              |
| R 5502           | CARBON RES. 1/4W J 8.2K Ω                               | RCX4JATZ0822 |
| R 5503           | CARBON RES. 1/4W J 3.9K Ω                               | RCX4JATZ0392 |
| R 5504           | CARBON RES. 1/4W J 2.2K Ω                               | RCX4JATZ0222 |
| R 5505           | CARBON RES. 1/4W J 1.5K Ω                               | RCX4JATZ0152 |
| R 5506           | CARBON RES. 1/4W J 1.2K Ω                               | RCX4JATZ0122 |
| R 5507           | CARBON RES. 1/4W J 1K Ω                                 | RCX4JATZ0102 |
| R 5508           | CARBON RES. 1/4W J 1.8K Ω                               | RCX4JATZ0182 |
| <b>SWITCHES</b>  |                                                         |              |
| SW5502           | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
| SW5503           | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
| SW5504           | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
| SW5505           | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
| SW5506           | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
| SW5507           | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
| SW5508           | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
| SW5509           | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
| SW5510           | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
| SW5511           | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
| SW5512           | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
| SW5513           | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
| SW5514           | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
| SW5515           | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
| SW5516           | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
| SW5517           | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
| SW5518           | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
| SW5519           | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
| SW5520           | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
| SW5521           | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
| SW5522           | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
| SW5523           | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
| SW5524           | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
| SW5525           | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
| SW5526           | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
| SW5527           | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
| SW5528           | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
| SW5529           | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
| SW5530           | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
| SW5531           | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
| SW5532           | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
| SW5533           | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
| SW5534           | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
| SW5535           | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
|                  | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
| SW5536           | TACT SWITCH DHT-1102C or                                | SST0101LJ001 |
|                  | TACT SWITCH KPT-1105BM or                               | SST0101JP001 |
|                  | TACT SWITCH EVQ PAC 09K or                              | SST0101MS017 |
|                  | TACT SWITCH SKHHAP                                      | SST0101AL028 |
|                  | TACT SWITCH TS-1230BM or                                | SST0101VK002 |
| SW5537           | TACT SWITCH KSM0614B or                                 | SST0101HH013 |
|                  | TACT SWITCH DHT-110                                     |              |



DECK MECHANICAL PARTS LIST

| Ref. No. | Description                            | Parts No.     |
|----------|----------------------------------------|---------------|
| B 1      | CHASSIS ASSEMBLY                       | 0VSA05627     |
| B 2      | SYLINDER ASSEMBLY (V-8008SA(N) only)or | 0VM301885     |
|          | SYLINDER ASSEMBLY                      | 0VM201486     |
| B 2      | SYLINDER ASSEMBLY (V-8008CM(N) only)or | 0VM301796     |
|          | SYLINDER ASSEMBLY                      | 0VM201335     |
| B 3      | LOADING MOTOR PREPARATION              | 0VSA04781     |
| B 4      | MOTOR HOLDER CALKING ASSEMBLY          | 0VM403364     |
| B 5      | CASSETTE DRIVE LEVER ASSEMBLY          | 0VM403507I    |
| B 6      | PINCH ROLLER ARM ASSEMBLY              | 0VSA05848     |
| B 7      | PINCH ARM ASSEMBLY or                  | 0VM402387     |
|          | PINCH ARM ASSEMBLY                     | 0VSA05924     |
| B 8      | PULLEY ASSEMBLY                        | 0VSA05505     |
| B 9      | MOVING GUIDE S ASSEMBLY                | 0VSA05722     |
| B 10     | MOVING GUIDE T ASSEMBLY                | 0VSA05723     |
| B 11     | LOADING ARM T ASSEMBLY                 | 0VSA05503     |
| B 12     | LOADING ARM B ASSEMBLY                 | 0VSA04215     |
| B 13     | LOADING ARM M ASSEMBLY                 | 0VM404693     |
| B 14     | PINCH ROLLER SP                        | 0VM403949B    |
| B 15     | LUMIRROR WASHER 3.1X6X0.35             | 0VM403269     |
| B 16     | CAM                                    | 0VM100453     |
| B 21     | LOADING BELT or                        | 0VM403432     |
|          | LOADING BELT                           | 0VM403952     |
| B 22     | P.S.W(CUT)                             | 0VM404679     |
| B 27     | BAND BRAKE ASSEMBLY                    | 0VSA04658     |
| B 28     | MAIN BRAKE S ASSEMBLY                  | 0VSA04212     |
| B 29     | MAIN BRAKE T ASSEMBLY                  | 0VSA04213     |
| B 30     | T BRAKE ARM ASSEMBLY                   | 0VSA04641     |
| B 31     | AC HEAD ASSEMBLY                       | 0VSA04756     |
| B 32     | REEL BASE ASSEMBLY                     | 0VSA04759     |
| B 34     | MAIN LEVER ASSEMBLY                    | 0VM402558     |
| B 35     | TAPE GUIDE ASSEMBLY                    | 0VM402560     |
| B 36     | TENSION LEVER SP ASSEMBLY              | 0VSA04550     |
| B 37     | CAPSTAN MOTOR F2QKB92                  | MMDDDB5ZSJ002 |
| B 38     | MODE CHANGE LEVER                      | 0VM201234G    |
| B 39     | M BRAKE(S)SPRING                       | 0VM402579     |
| B 40     | M BRAKE(S)LEVER                        | 0VM300753     |
| B 41     | S BRAKE ARM                            | 0VM301759     |
| B 42     | M BRAKE T ARM SPRING                   | 0VM402582     |
| B 43     | T BRAKE SPRING                         | 0VM402580     |
| B 44     | HEAD ADJUST SPRING                     | 0VM402567A    |
| B 45     | M LEVER SPRING                         | 0VM402570     |
| B 46     | TAPE GUIDE ARM SPRING                  | 0VM402581     |
| B 47     | TAPE GUIDE ARM ADJUST SCREW            | 0VM403242     |
| B 48     | ADJUST NUT (B)                         | 0VM404678A    |
| B 49     | BT DRIVE ARM                           | 0VM300756K    |
| B 51     | CHANGE ARM or                          | 0VM402441E    |
|          | CHANGE ARM A                           | 0VM405857     |
| B 52     | BELT FWD or                            | 0VM402397     |
|          | BELT FWD                               | 0VM403950     |
| B 53     | P.S.W B                                | 0VM402625     |
| B 54     | GROUND BRUSH ASSEMBLY or               | 0VM404524     |
|          | GROUND BRUSH ASSEMBLY or               | 0VM404534     |
|          | GROUND BRUSH ASSEMBLY                  | 0VM404827     |
| B 73     | FE HEAD HVFHF0002A or                  | DHVEC01AL001  |
|          | FE HEAD VTR-1X2ERS11-109 or            | DHVEC01TE001  |
|          | FE HEAD MH-131S/KM131400               | DHVEC01LA001  |
| B 74     | LUMINESCENCE PRISM(B)                  | 0VM301764F    |
| B 76     | REC ARM SPRING                         | 0VM402578     |
| B 80     | SPRING FOR PRESSING PACK or            | 0VM405684     |
|          | SPRING FOR PRESSING PACK               | 0VM403674     |
| B 81     | M LEVER HOLDER                         | 0VM301717     |
| B 83     | RACK SPRING                            | 0VM403894     |

| Ref. No. | Description                        | Parts No.  |
|----------|------------------------------------|------------|
| B 98     | T,G CAP (2)                        | 0VM404937  |
| B 103    | REC ARM A                          | 0VM301441H |
| B 104    | REC ARM B                          | 0VM301442G |
| B 105    | REC SPRING                         | 0VM403724  |
| B 108    | P.S.W F                            | 0VM402629  |
| B 121    | WORM                               | 0VM402429  |
| B 122    | P.S.W C                            | 0VM402626  |
| B 123    | P.S.W (WORM THRUST)                | 0VM403348  |
| B 126    | PULLEY                             | 0VM301718D |
| B 127    | PULLEY FELT                        | 0VM404952  |
| B 128    | KICK ARM HOLDER                    | 0VM301716  |
| B 129    | PRESS FIT BUSH                     | 0VM403652  |
| B 130    | KICK ARM                           | 0VM404382  |
| B 131    | KICK ARM SPRING                    | 0VM404424  |
| B 132    | CLUTCH ASSEMBLY                    | 0VSA05509  |
| B 133    | ARM IDLER ASSEMBLY                 | 0VSA05512  |
| B 137    | BUSH CLUTCH                        | 0VM404513  |
| B 141    | PULLEY SUB ASSEMBLY                | 0VSA05998  |
| B 142    | SHAFT LOCK ASSEMBLY                | 0VSA04642  |
| B 143    | GROUND SPRING(U7)                  | 0VM404920A |
| B 144    | CLUTCH WASHER MK2                  | 0VM404428  |
| B 146    | SPRING SUPPORTER                   | 0VM405084  |
| B 147    | STOPPER BOSS                       | 0VM405188  |
| B 300    | FL ASSEMBLY                        | 0VDM06512  |
| B 301    | FL BOX                             | 0VM000062  |
| B 302    | RACK                               | 0VM201456B |
| B 303    | F DOOR OPENER R                    | 0VM301992D |
| B 304    | DOOR OPENER                        | 0VM302019B |
| B 306    | SLIDER GEAR L                      | 0VM405213  |
| B 307    | F DOOR OPENER R SP                 | 0VM405214C |
| B 308    | SLIDER SHAFT                       | 0VM405222  |
| B 309    | MIRROR                             | 0VM405224  |
| B 310    | MIRROR HOLDER                      | 0VM405225  |
| B 311    | DOOR OPENER SP                     | 0VM405302  |
| B 312    | CASSETTE DRIVE GEAR                | 0VM301994  |
| B 313    | CASSETTE DRIVE GEAR R SP           | 0VM405223A |
| B 314    | CASSETTE PLATE                     | 0VM301993  |
| B 315    | SLIDER R                           | 0VM201457F |
| B 316    | DOOR LOCK RELEASE ARM SPRING       | 0VM402508C |
| B 317    | DOOR LOCK RELEASE ARM(3)           | 0VM405034D |
| B 319    | CASSETTE SPRING STOPPER            | 0VM402507F |
| B 321    | SLIDER L                           | 0VM100515C |
| B 322    | LOCK LEVER SPRING(E)               | 0VM405677  |
| B 323    | LOCK LEVER L                       | 0VM405215C |
| B 325    | DRIVE GEAR REINFORCEMENT(3)        | 0VM405785  |
| B 335    | GEAR SUPPORTER                     | 0VM405664  |
| B 336    | SLIDER GEAR R                      | 0VM405696  |
| B 337    | EARTH PLATE                        | 0VM405683D |
| B 338    | P.S.W CUT (3.1X6X0.25)             | 0VM405809  |
| B 340    | RELEASE BUSH                       | 0VM405678  |
| B 342    | DECK PLATE                         | 0VM302185A |
| L1011    | SCREW, C-TIGHT M3X9 PAN HEAD+      | GPMS3090   |
| L1051    | SCREW, S-TIGHT M2.6X6 PAN HEAD+ or | GPMS9060   |
|          | SCREW(CAPSTAN) M2.6X6 S-TIGHT      | 0VM405901  |
| L1053    | SCREW, S-TIGHT M2.6X6 PAN HEAD+ or | GPMS9060   |
|          | SCREW(CAPSTAN) M2.6X6 S-TIGHT      | 0VM405901  |
| L1061    | SCREW, S-TIGHT M2.6X4 PAN HEAD+    | GPMS9040   |
| L1062    | SCREW, S-TIGHT M2.6X4 PAN HEAD+    | GPMS9040   |
| L1081    | SCREW, S-TIGHT M3X6 BIND HEAD+     | GBMS3060   |
| L1091    | SCREW, S-TIGHT M3X6 CUP HEAD+      | GCMS3060   |
| L1101    | SCREW, P-TIGHT BIND HEAD 3X8       | GBMP3080   |

| Ref. No. | Description                      | Parts No. |
|----------|----------------------------------|-----------|
| L1103    | SCREW, P-TIGHT BIND HEAD 3X8     | GBMP3080  |
| L1104    | SCREW, P-TIGHT BIND HEAD 3X8     | GBMP3080  |
| L1111    | SCREW, P-TIGHT M3X8 WASHER HEAD+ | GCMP3080  |
| L1112    | SCREW, P-TIGHT M3X8 WASHER HEAD+ | GCMP3080  |
| L1121    | HEXAGON NUT M3                   | NHNM030   |
| L1151    | SCREW, SEMS M3X4 PAN HEAD +      | CPM33040  |
| L1191    | SCREW, P-TIGHT M2.6X10 PAN HEAD+ | GPMP9100  |
| L1202    | SCREW, B-TIGHT M3X6 PAN HEAD+    | GPMB3060  |
| L1221    | SCREW, SPECIAL                   | 0VM403688 |
| L1231    | SPACER SCREW ASSEMBLY            | 0VM403752 |
| L1241    | BIND SCREW P-TIGHT M2X6          | GBMP2060  |
| L1291    | SCREW, P-TIGHT M2.6X6 PAN HEAD+  | GPMP9060  |
| L1301    | SCREW, P-TIGHT M2.6X8 PAN HEAD+  | GPMP9080  |
| L1311    | SCREW, B-TIGHT M3X18 PAN HEAD+   | GPMB3180  |



DECK ELECTRICAL PARTS LIST

**PRODUCT SAFETY NOTE:** Products marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice in this service manual. Don't degrade the safety of the product through improper servicing.

**NOTE:** Parts that not assigned part numbers (-----) are not available.

Tolerance of Capacitors and Resistors are noted with the following symbols.

|              |             |                |
|--------------|-------------|----------------|
| C.....±0.25% | D.....±0.5% | F.....±1%      |
| G.....±2%    | J.....±5%   | K.....±10%     |
| M.....±20%   | N.....±30%, | Z.....+80/-20% |

Head Amp (PRV) CBA

| Ref. No. | Description                                                   | Part No.                     |
|----------|---------------------------------------------------------------|------------------------------|
|          | <b>Head Amp (PRV) CBA</b>                                     | <b>0VSA05794</b>             |
|          | Consists of the following:                                    |                              |
|          | <b>CAPACITORS</b>                                             |                              |
| C 3501   | CERAMIC CAP. F Z 0.1µF/50V                                    | 3F40104T                     |
| C 3502   | ELECTROLYTIC CAP. 100µF/6.3V M H7                             | 526R107S                     |
| C 3503   | ELECTROLYTIC CAP. 0.22µF/50V M H7                             | 526W224S                     |
| C 3504   | CERAMIC CAP. Y M 0.01µF/16V or<br>CERAMIC CAP. F Z 0.01µF/16V | 3Y4D103T<br>1220842T         |
| C 3505   | CERAMIC CAP. Y M 0.01µF/16V or<br>CERAMIC CAP. F Z 0.01µF/16V | 3Y4D103T<br>1220842T         |
| C 3506   | CERAMIC CAP. Y M 0.01µF/16V or<br>CERAMIC CAP. F Z 0.01µF/16V | 3Y4D103T<br>1220842T         |
| C 3507   | CERAMIC CAP. F Z 0.1µF/50V                                    | 3F40104T                     |
| C 3509   | CERAMIC CAP. F Z 0.1µF/50V                                    | 3F40104T                     |
| C 3513   | CERAMIC CAP. SL J 15PF/50V                                    | 3S41150T                     |
| C 3521   | CERAMIC CAP. B J 100PF/50V                                    | 3B41101T                     |
| C 3522   | CERAMIC CAP. SL J 47PF/50V                                    | 3S41470T                     |
|          | <b>CONNECTORS</b>                                             |                              |
| CL3502   | JUMPER WIRE, 6P                                               | WX1K7010-002                 |
| CN3501   | ANGLE SOCKET CONNECTOR 15P                                    | 1770610                      |
| CN3502   | FFC CONNECTOR BASE, SIDE 5P or<br>FFC CONNECTOR BASE, SIDE 5P | JC96J05ERC0C<br>1700471      |
| CN3503   | CONNECTOR ASSEMBLY 2P                                         | WX1K7010-007                 |
|          | <b>IC</b>                                                     |                              |
| IC3501   | IC, VIDEO H-AMP LA7376                                        | QSBLA0SSY035                 |
|          | <b>COIL</b>                                                   |                              |
| L 3501   | INDUCTOR 22µH-K-26T or<br>INDUCTOR 22µH-K-26T                 | LLAXKDTKA220<br>LLAXKATTU220 |
|          | <b>RESISTORS</b>                                              |                              |
| R 3501   | CARBON RES. 1/4W J 22K Ω or<br>CARBON RES. 1/6W J 22K Ω       | RCX4JATZ0223<br>132A223T     |
| R 3502   | CARBON RES. 1/4W J 8.2K Ω or<br>CARBON RES. 1/6W J 8.2K Ω     | RCX4JATZ0822<br>132A822T     |
| R 3503   | CARBON RES. 1/4W J 1K Ω or<br>CARBON RES. 1/6W J 1K Ω         | RCX4JATZ0102<br>132A102T     |
| R 3504   | CARBON RES. 1/4W J 5.6K Ω or<br>CARBON RES. 1/6W J 5.6K Ω     | RCX4JATZ0562<br>132A562T     |
| R 3505   | CARBON RES. 1/4W J 33K Ω or<br>CARBON RES. 1/6W J 33K Ω       | RCX4JATZ0333<br>132A333T     |
|          | <b>MISCELLANEOUS</b>                                          |                              |
| 2B 2     | SHIELD, TOP                                                   | 0VM301927                    |
| 2B 3     | SHIELD, BOTTOM                                                | 0VM301928                    |

Jnt CBA

| Ref. No. | Description                | Part No.         |
|----------|----------------------------|------------------|
|          | <b>Jnt CBA</b>             | <b>0VSA05796</b> |
|          | Consists of the following: |                  |
|          | Joint (Joint-A) CBA        | -----            |
|          | Mode SW (Joint-B) CBA      | -----            |
|          | ACE Head (Joint-C) CBA     | -----            |

Joint (Joint-A) CBA

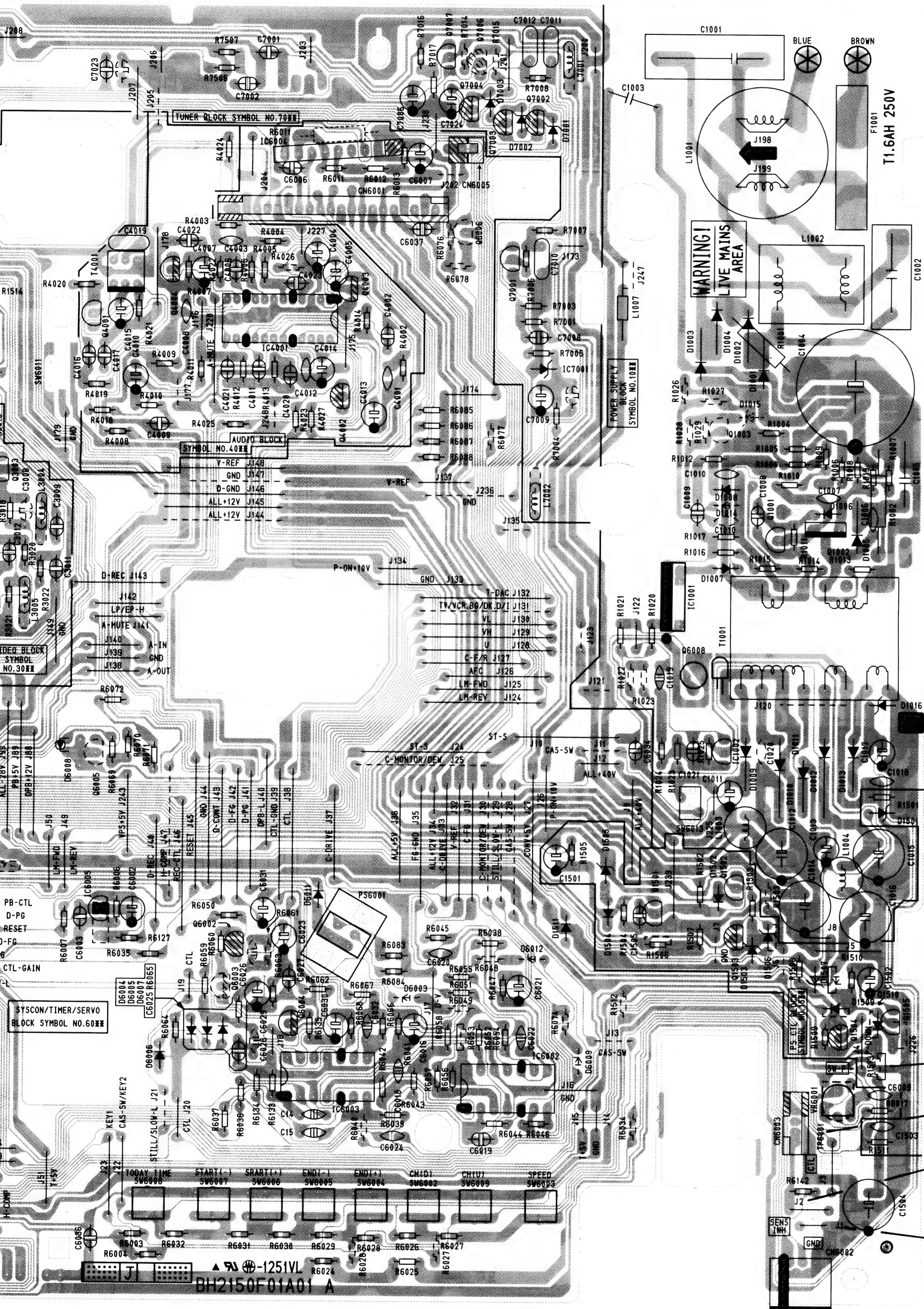
| Ref. No. | Description                                                                                                                                                    | Part No.                                                 |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
|          | <b>Joint (Joint-A) CBA</b>                                                                                                                                     | -----                                                    |
|          | Consists of the following:                                                                                                                                     |                                                          |
|          | <b>CONNECTORS</b>                                                                                                                                              |                                                          |
| CN2801   | FFC CONNECTOR BASE, TOP 9P or<br>FFC CONNECTOR BASE, TOP 9P or<br>FFC CONNECTOR BASE, TOP 9P or<br>FFC CONNECTOR BASE, TOP 9P or<br>FFC CONNECTOR BASE, TOP 9P | JC2SJ09ERH0C<br>1700915<br>1700449<br>1700515<br>1700986 |
| CN2901   | ANGLE SOCKET CONNECTOR, 20P                                                                                                                                    | 1770615                                                  |
| CN2902   | ANGLE PIN HEADER, 2P                                                                                                                                           | 1740775                                                  |
|          | <b>RESISTORS</b>                                                                                                                                               |                                                          |
| R 2801   | CARBON RES. 1/4W J 27K Ω or<br>CARBON RES. 1/6W J 27K Ω                                                                                                        | RCX4JATZ0273<br>132A273T                                 |
| R 2802   | CARBON RES. 1/4W J 27K Ω or<br>CARBON RES. 1/6W J 27K Ω                                                                                                        | RCX4JATZ0273<br>132A273T                                 |
|          | <b>MISCELLANEOUS</b>                                                                                                                                           |                                                          |
| CL2901   | JUMPER WIRE, 5P                                                                                                                                                | WX1K7010-003                                             |
| CL2902   | JUMPER WIRE, 6P                                                                                                                                                | WX1K7010-001                                             |
|          | FFC CABLE, 9P                                                                                                                                                  | WX3909QZ4413                                             |

Mode SW (Joint-B) CBA

| Ref. No. | Description                  | Part No.     |
|----------|------------------------------|--------------|
|          | <b>Mode SW (Joint-B) CBA</b> | -----        |
|          | Consists of the following:   |              |
| SW2901   | MODE SWITCH HMW0420-710010   | SSR0104HD001 |

ACE Head (Joint-C) CBA

| Ref. No. | Description                                           | Part No.                     |
|----------|-------------------------------------------------------|------------------------------|
|          | <b>ACE Head (Joint-C) CBA</b>                         | -----                        |
|          | Consists of the following:                            |                              |
| CN2903   | FLAT CABLE CONNECTOR 6P or<br>FLAT CABLE CONNECTOR 6P | JEHBJ06JE001<br>JC88J06NB001 |

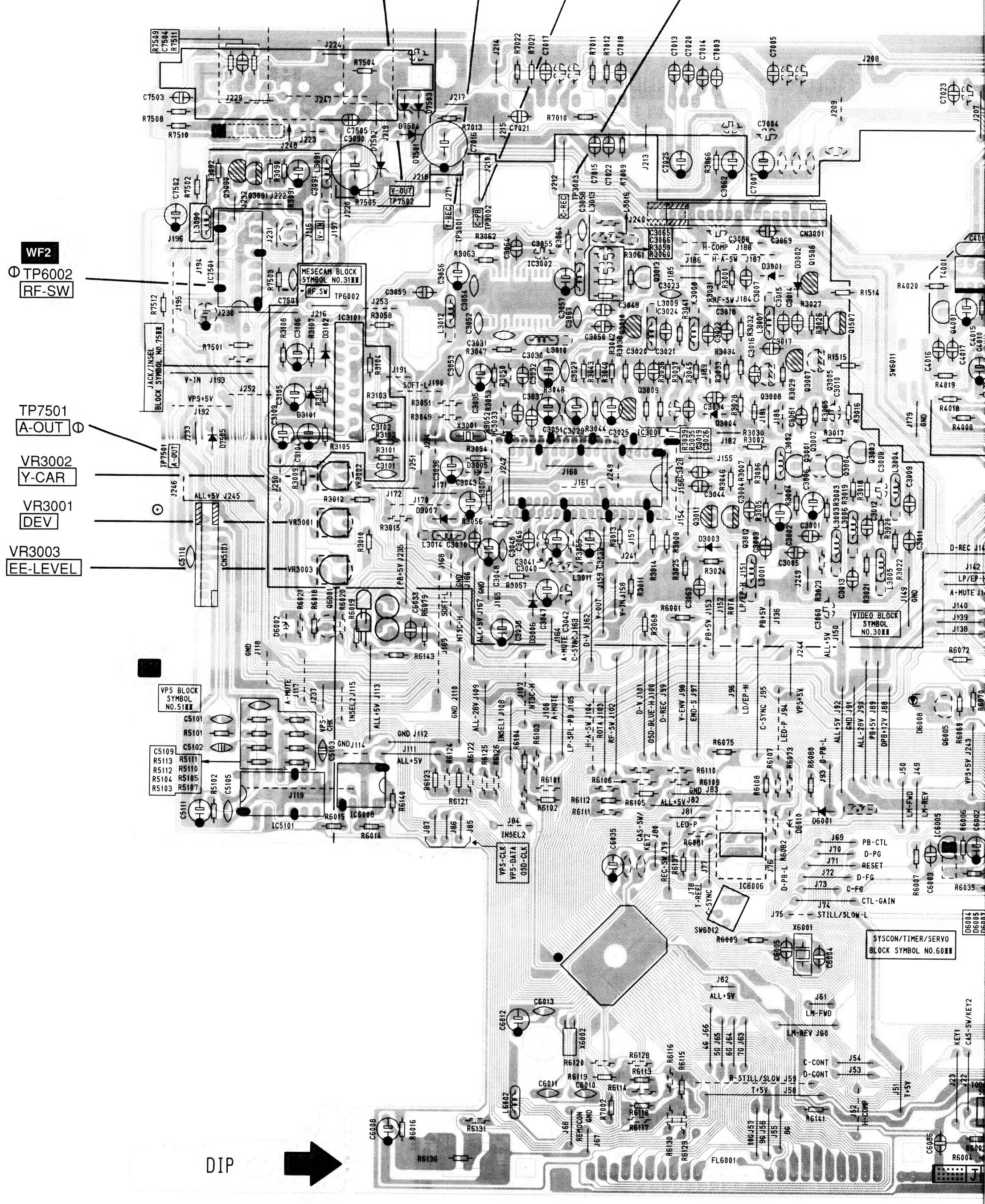


- VR6001 SW-P
- TP6001 CTL
- J2 SENS-INH
- J1 GND



WF1 TP7502 V-OUT ○  
WF4 TP3001 Y-REC ○  
WF5 TP3002 C-PB ○  
WF3 TP3003 C-REC

WF2 TP6002 RF-SW  
TP7501 A-OUT ○  
VR3002 Y-CAR  
VR3001 DEV  
VR3003 EE-LEVEL

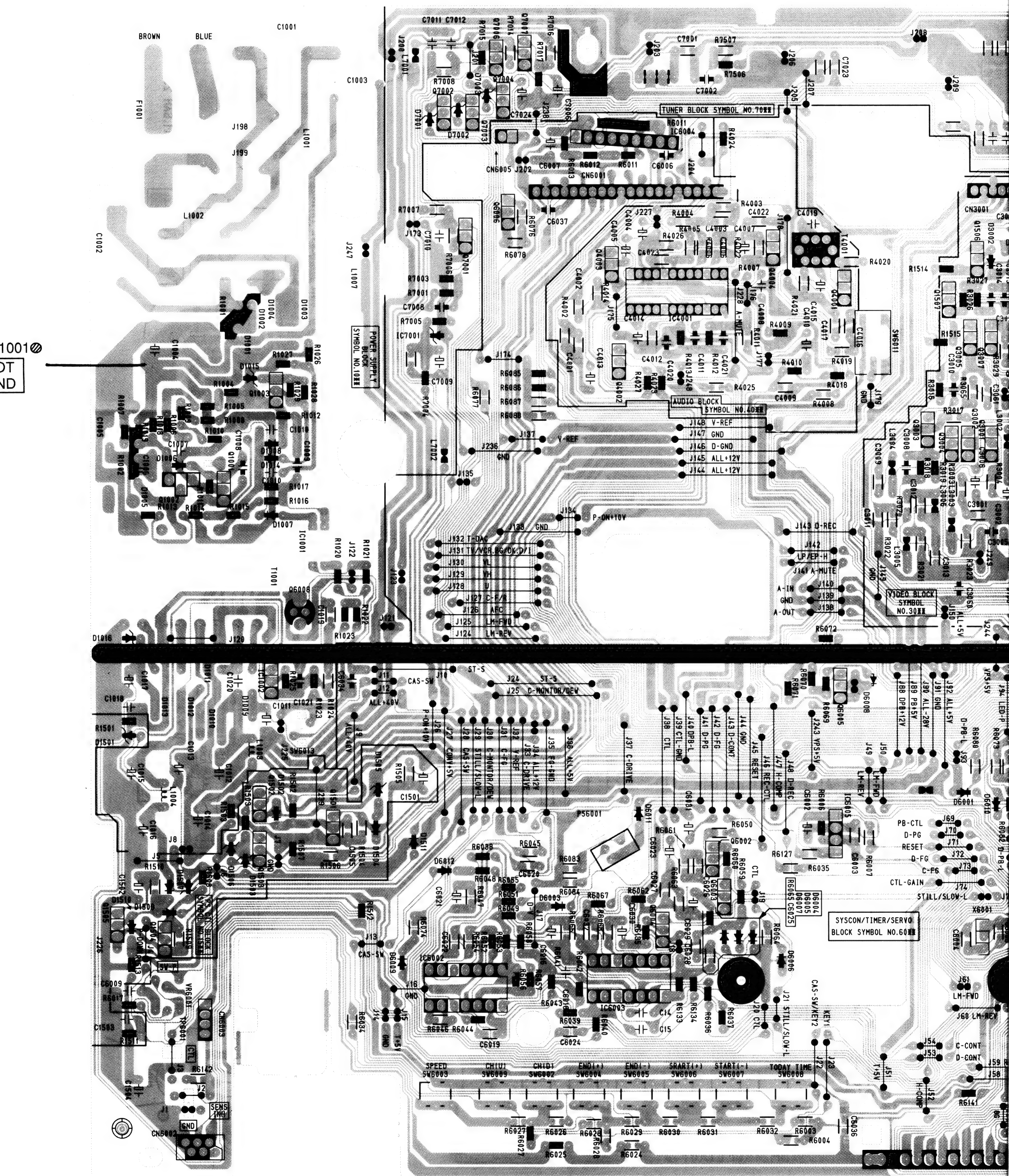


DIP









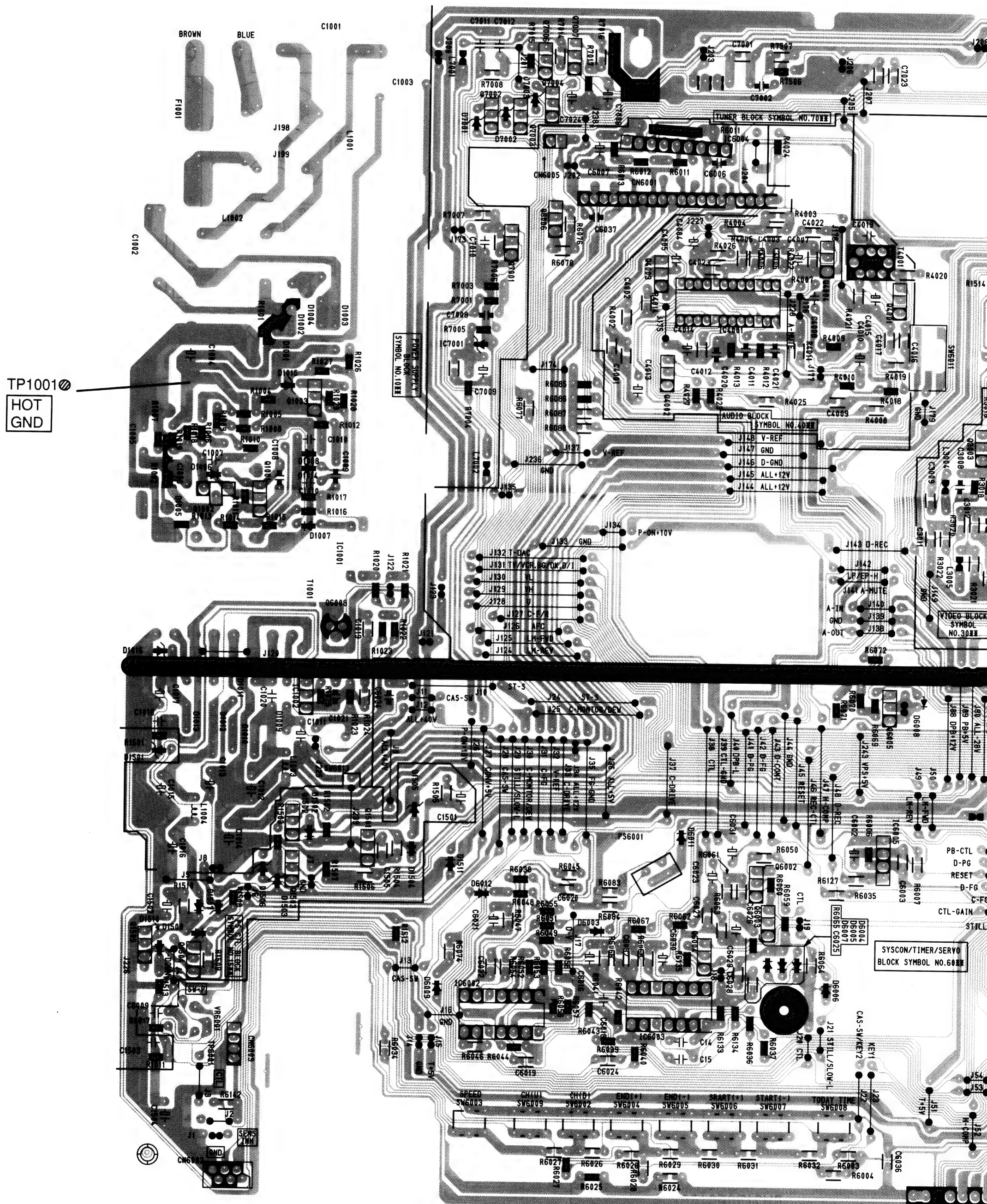


(Serial No. H42410001 ~ H42413500)

**CAUTION :**  
Fixed voltage power supply circuit is used in this unit.

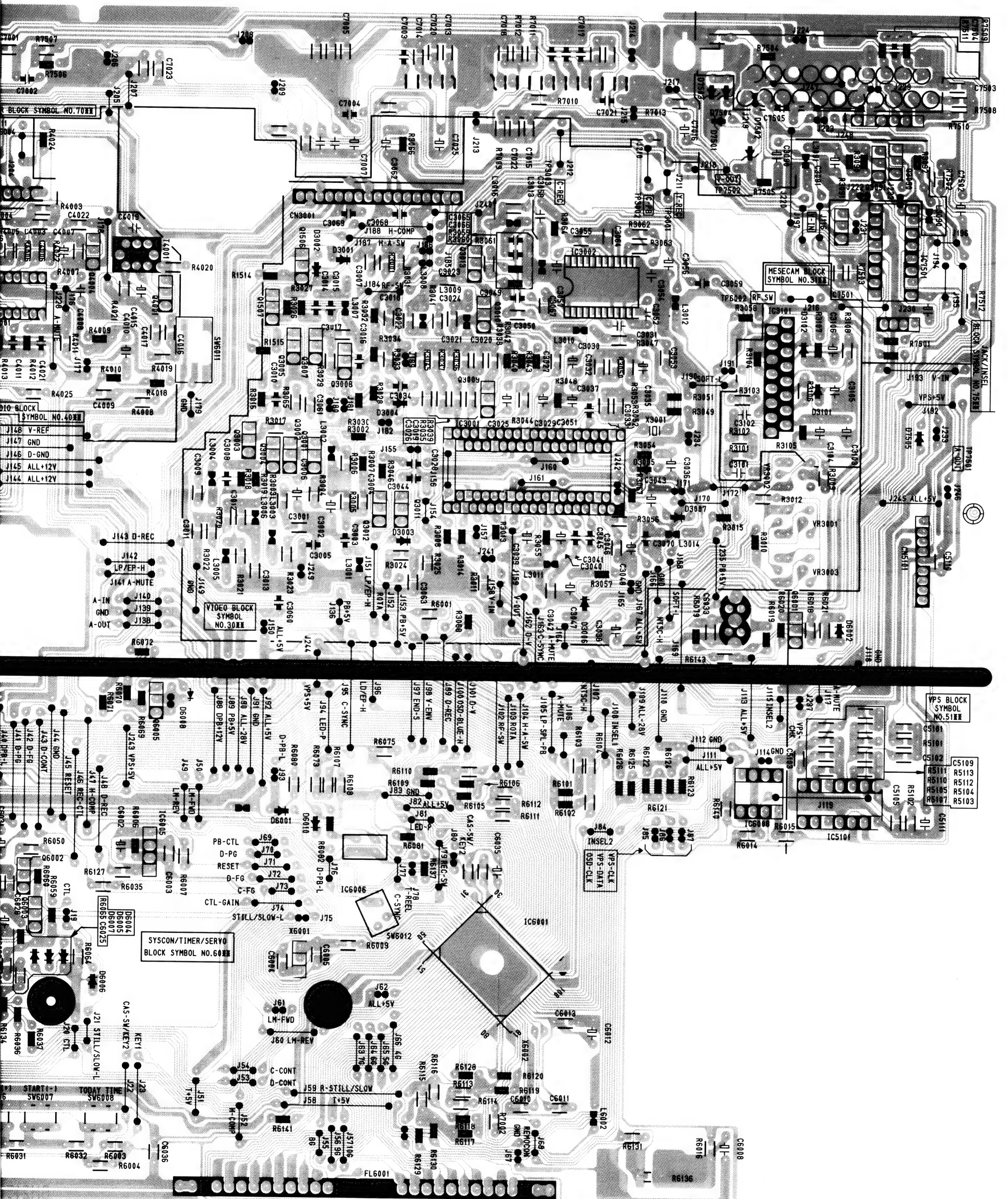
If Main Fuse (F01) is blown, check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

**CAUTION**  
FOR CONTINUED PROTECTION AGAINST  
REPLACE ONLY WITH THE SAME TYPE FU





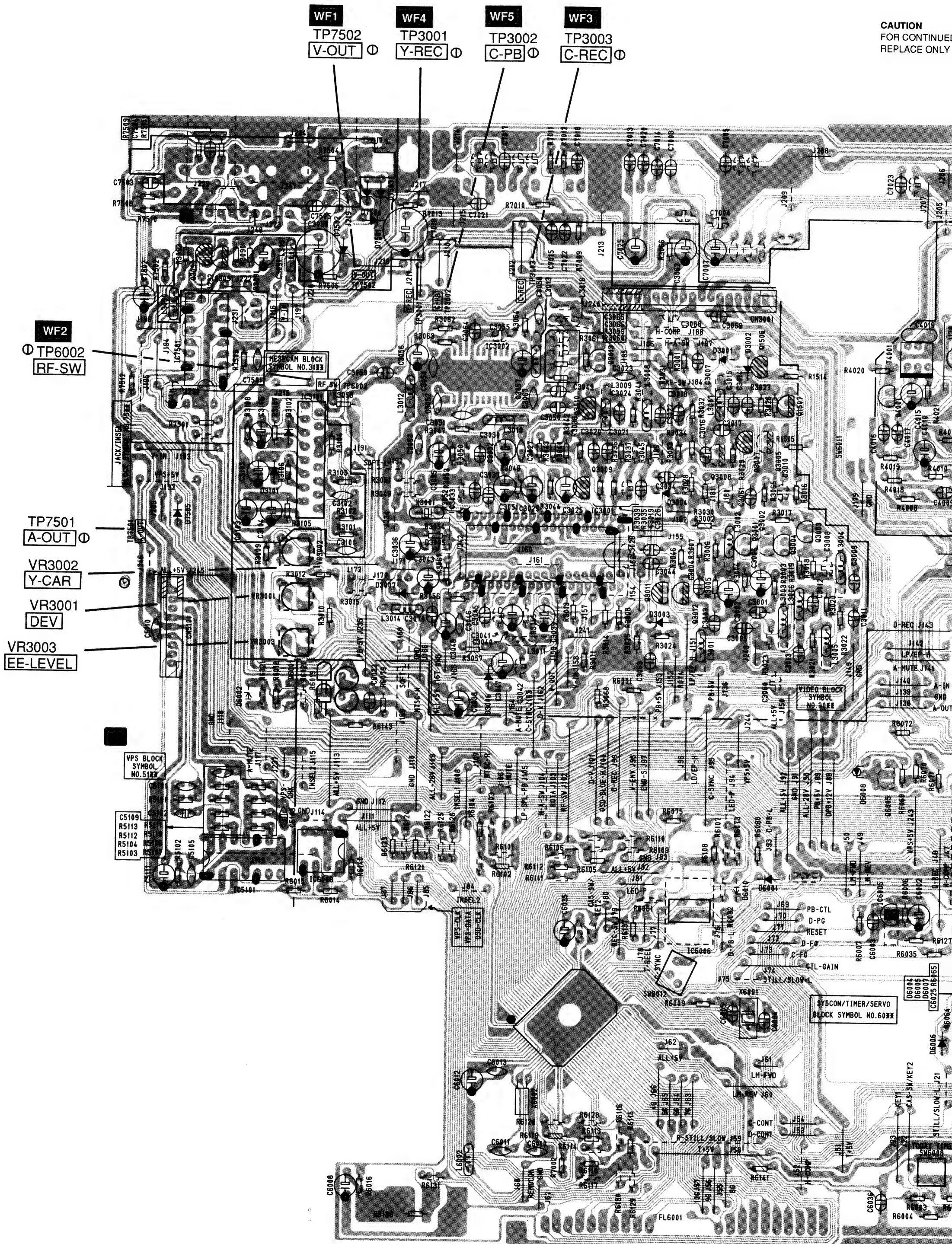
**CAUTION**  
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,  
REPLACE ONLY WITH THE SAME TYPE FUSE.





(Serial No. H42410001 ~ H42413500)

**CAUTION**  
FOR CONTINUED  
REPLACE ONLY





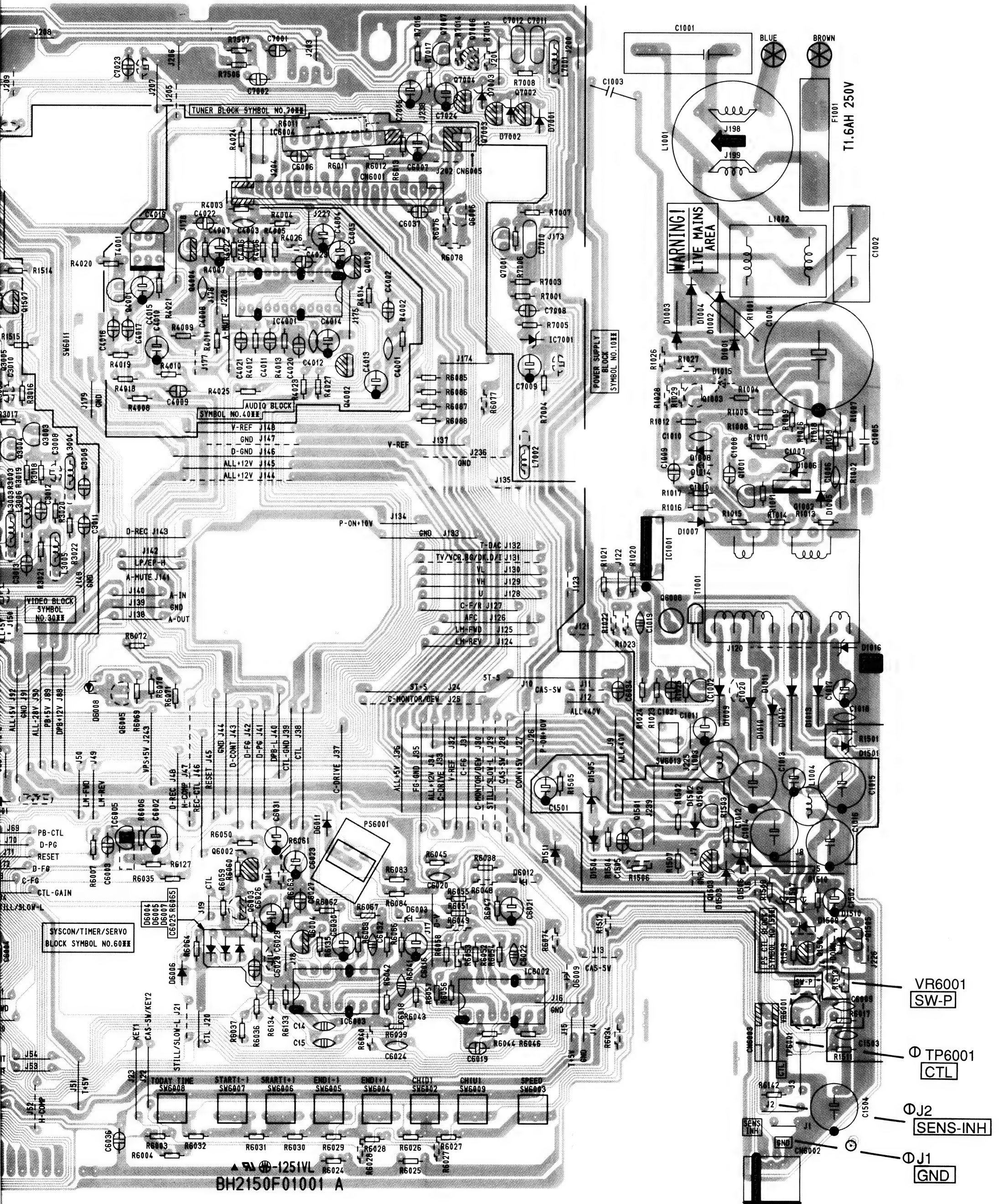
**CAUTION**

FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,  
REPLACE ONLY WITH THE SAME TYPE FUSE.

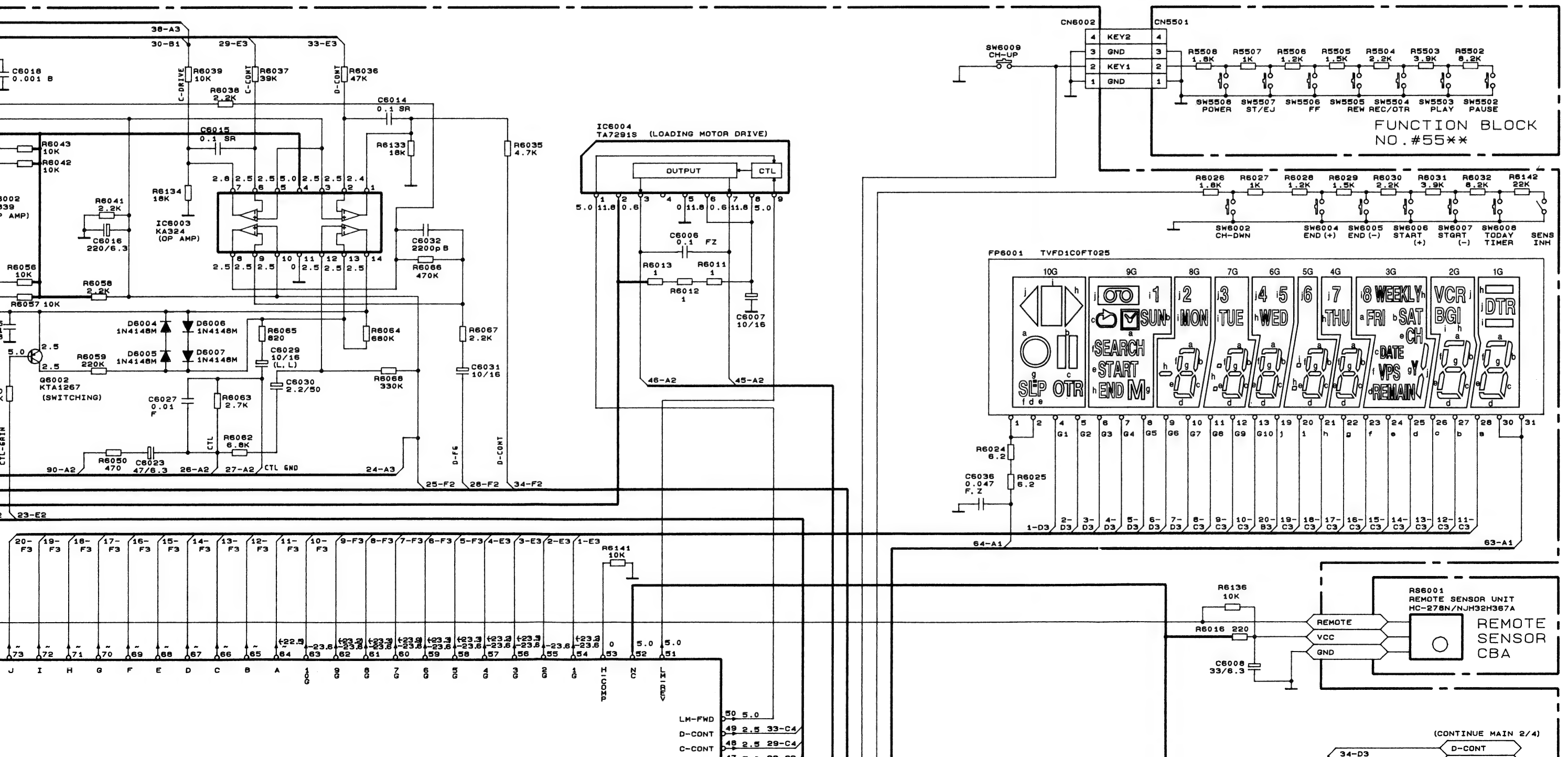
**CAUTION !**

Fixed voltage power supply circuit is used in this unit.

If Main Fuse (F001) is blown, check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.



| MODEL NO.   | MARK |
|-------------|------|
| V-8008CM(N) | A    |
| V-8008SA(N) | B    |

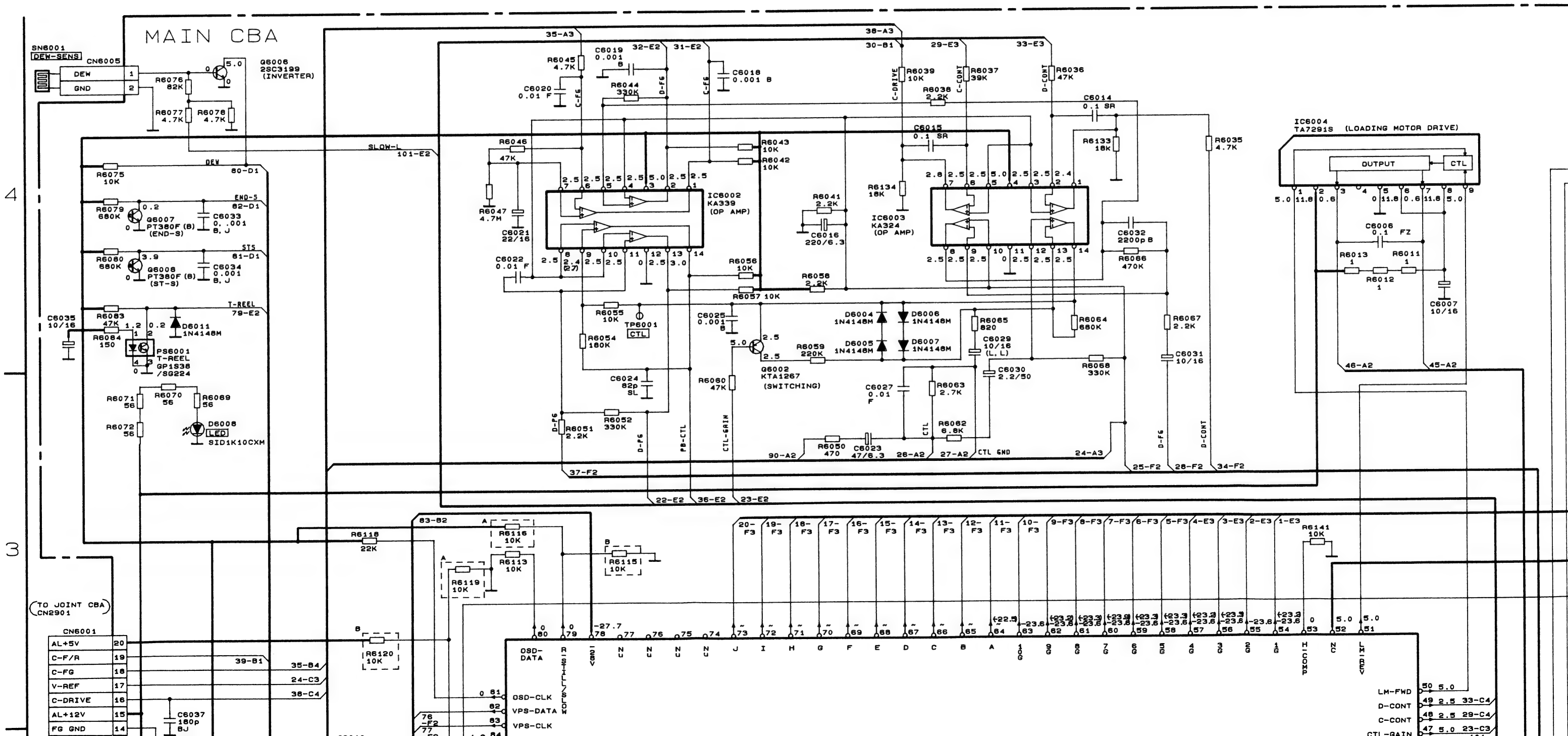


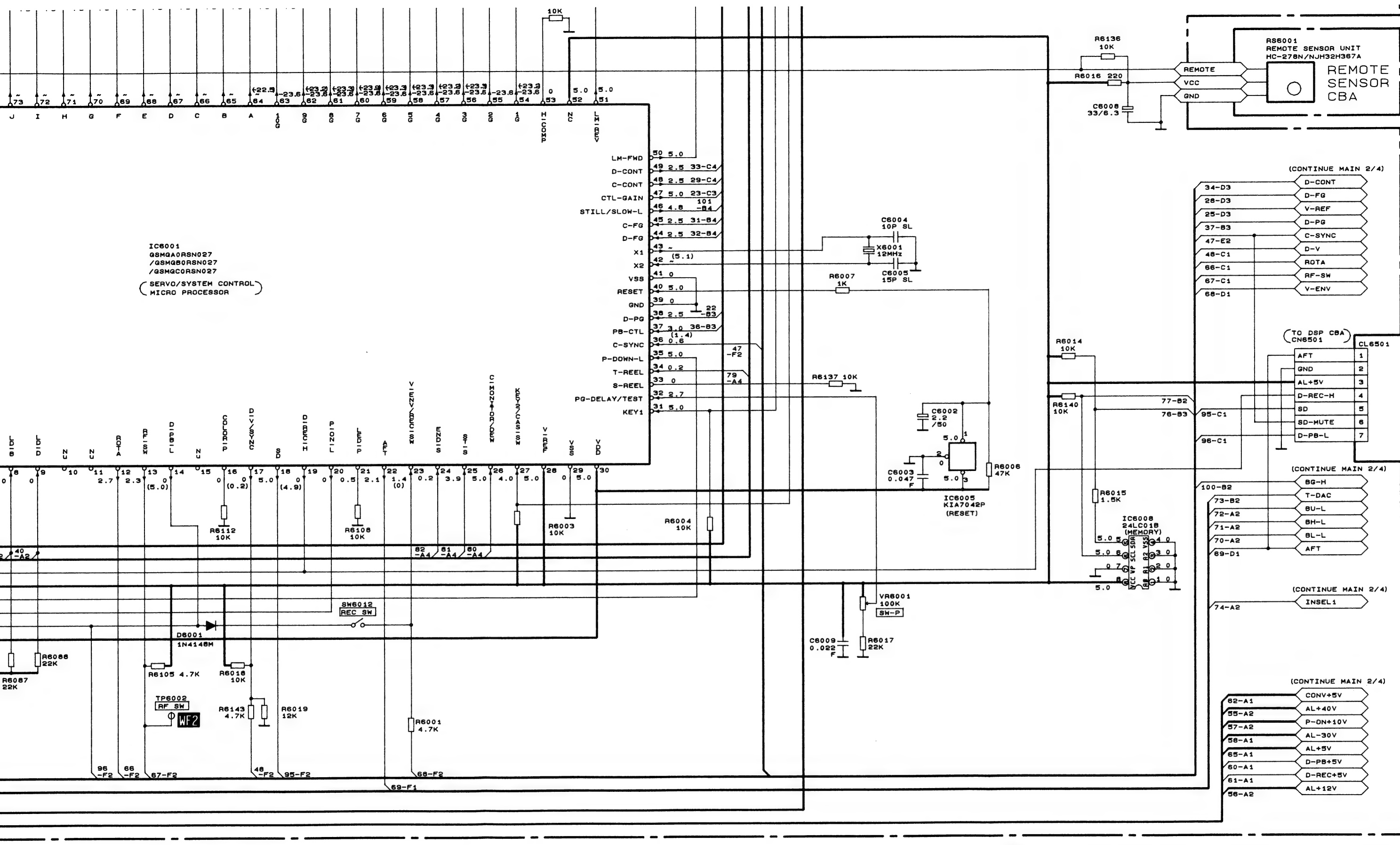


Main 1/4 Schematic Diagram

Comparison

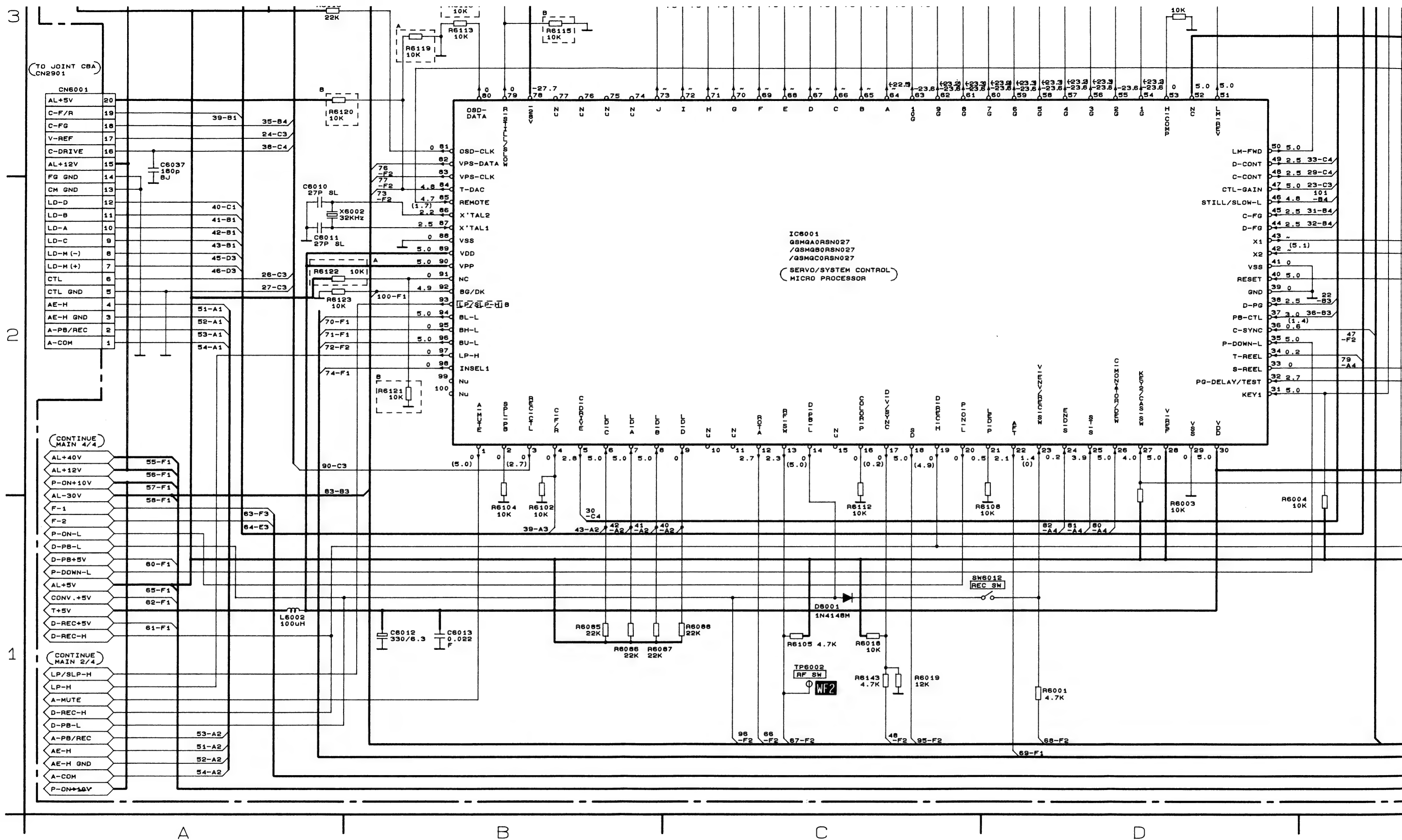
| MODEL NO.  |
|------------|
| V-8008CM(N |
| V-8008SA(N |





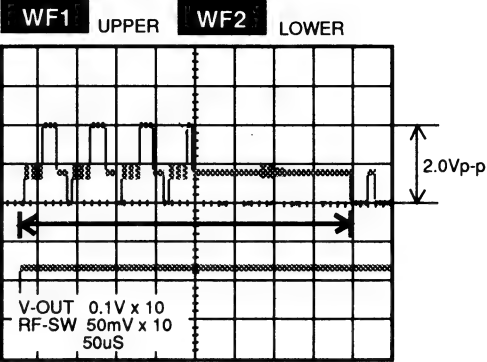
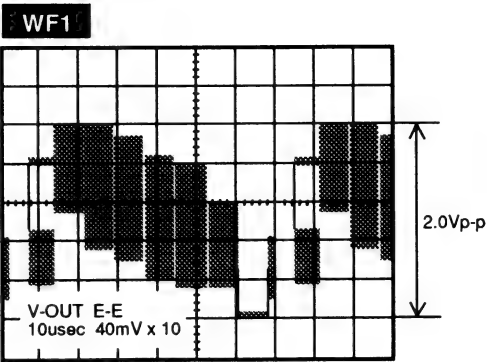
V2400SCM1X



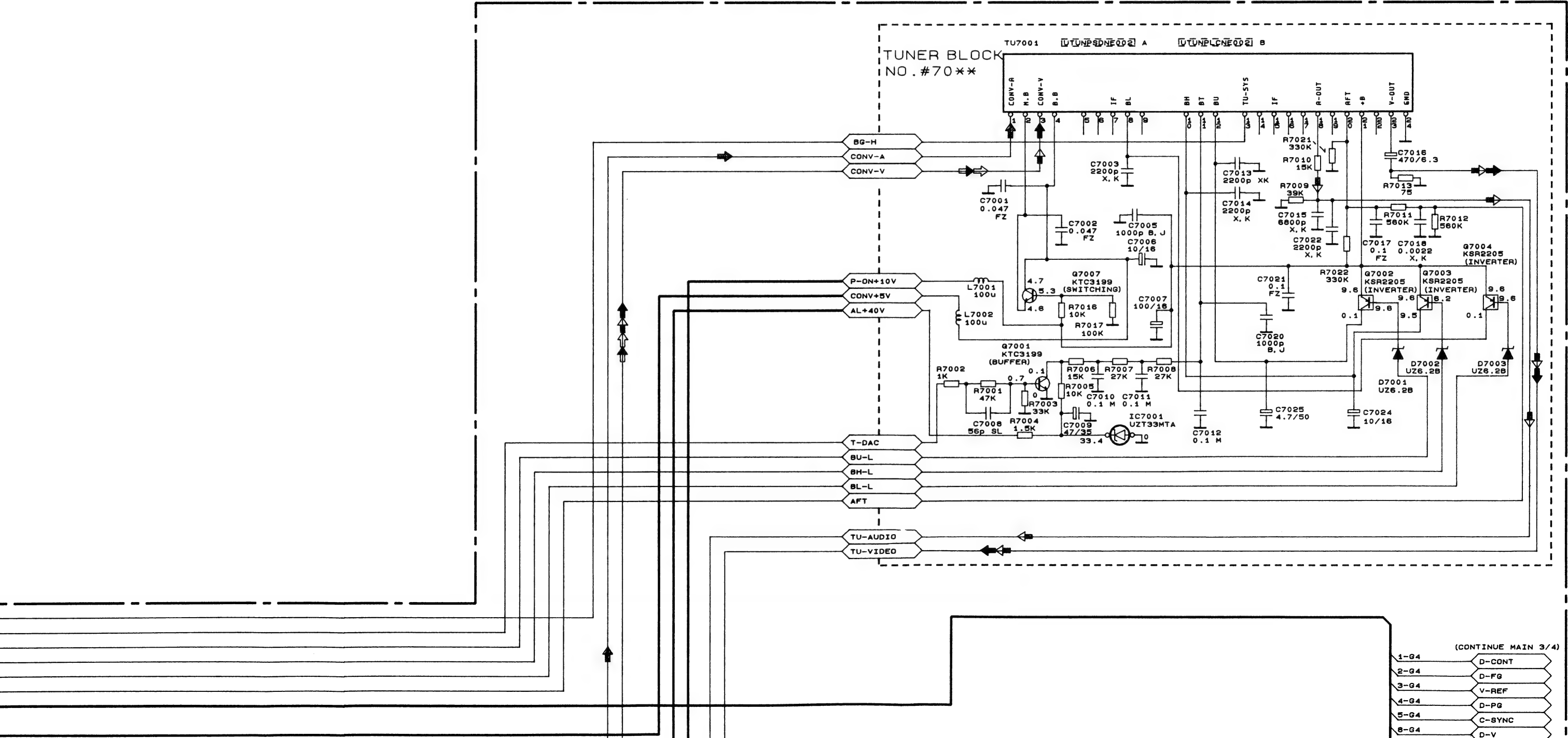


Comparison Charts of Models and Marks.

| MODEL NO.   | MARK |
|-------------|------|
| V-8008CM(N) | A    |
| V-8008SA(N) | B    |



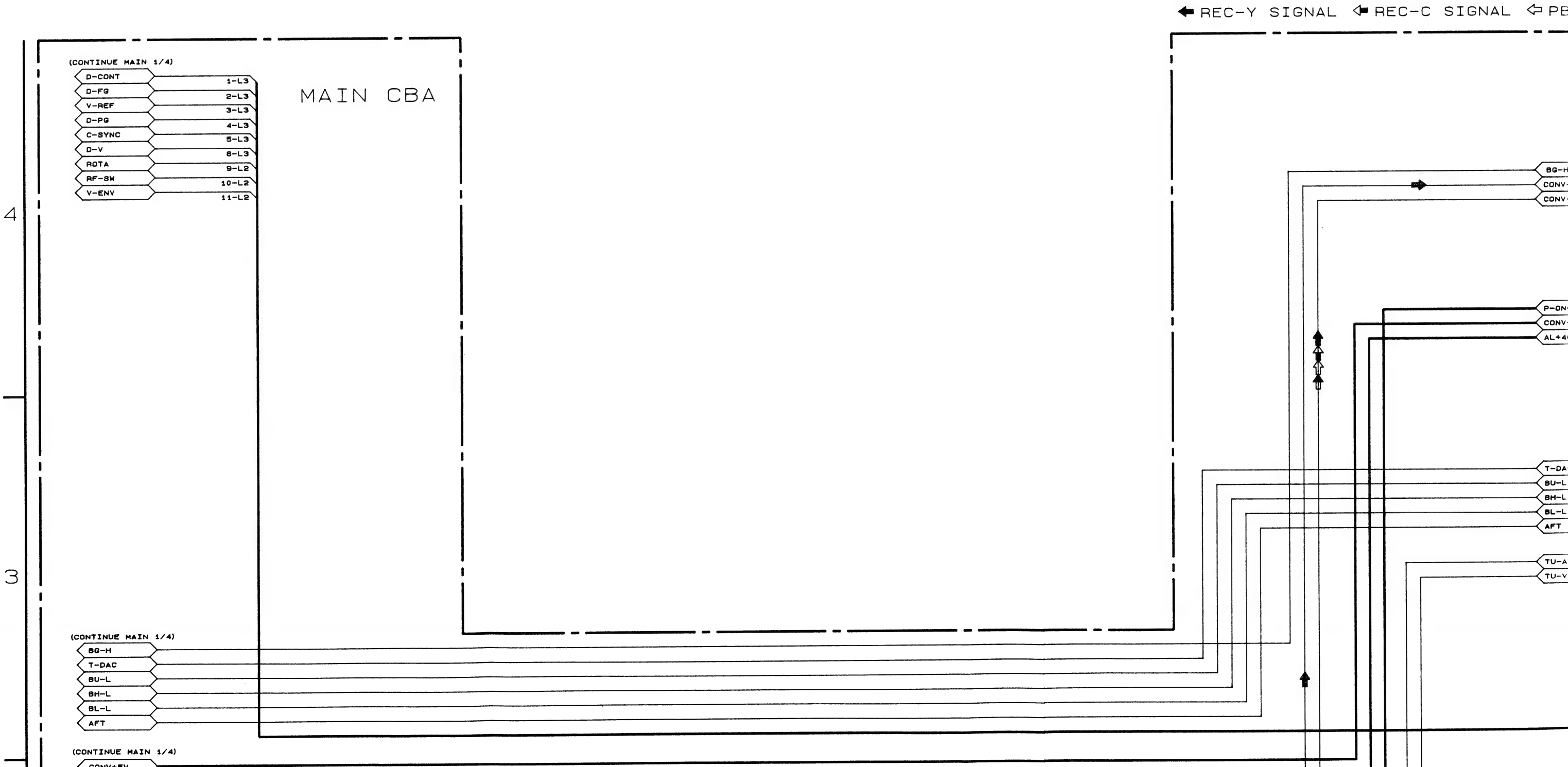
← REC-Y SIGNAL ← REC-C SIGNAL ← PB-Y SIGNAL ← PB-C SIGNAL ← REC-A SIGNAL ← PB-A SIGNAL

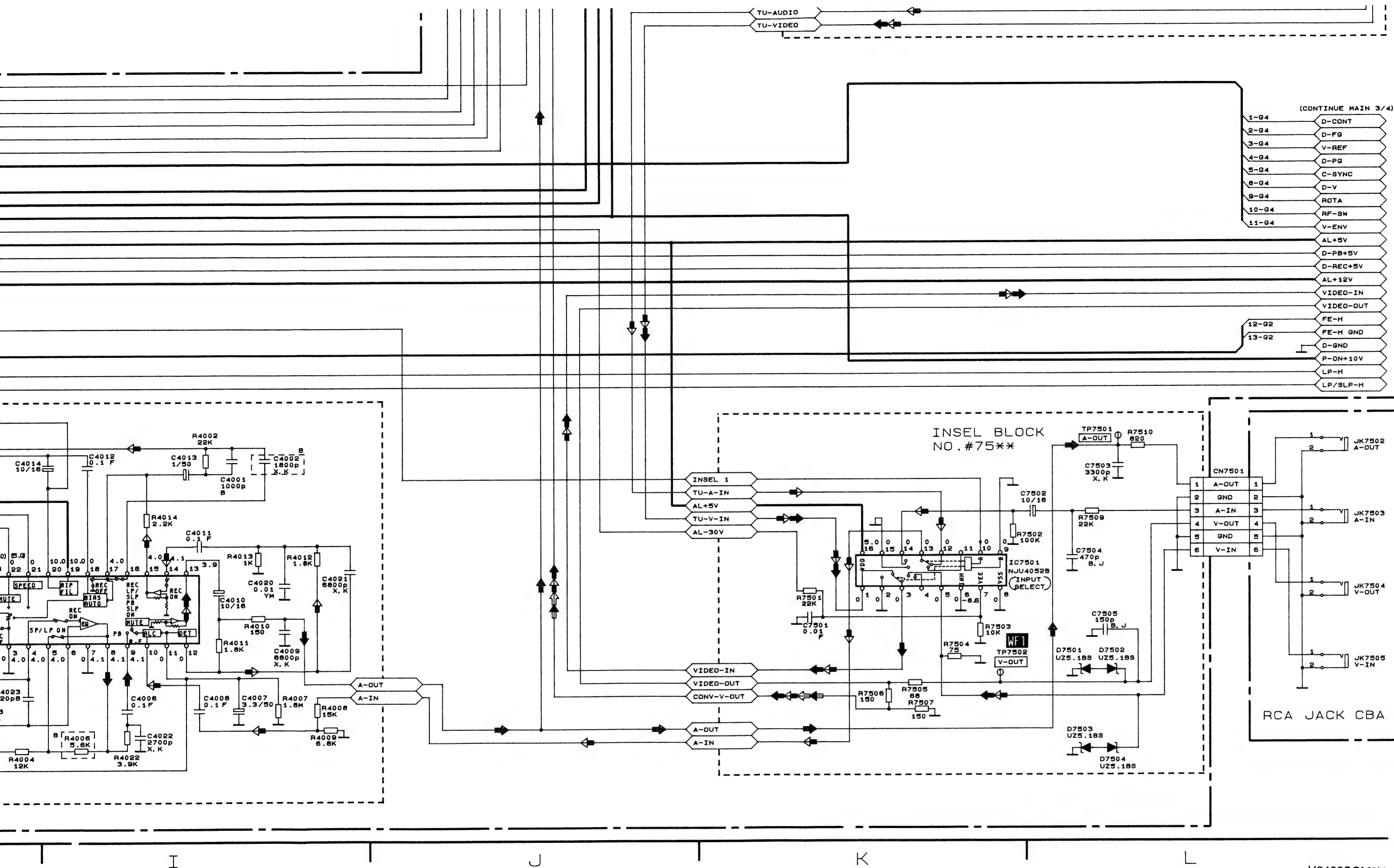


Main 2/4 Schematic Diagram

Comparison Charts of Models and Marks.

| MODEL NO.   | MARK |
|-------------|------|
| V-8008CM(N) | A    |
| V-8008SA(N) | B    |





V2400SCM2X

3

(CONTINUE MAIN 1/4)

BG-H  
T-DAC  
BU-L  
BH-L  
BL-L  
AFT

(CONTINUE MAIN 1/4)

CONV+5V  
AL+40V  
P-ON+10V  
AL-30V  
AL+5V  
D-PB+5V  
D-REC+5V  
AL+12V

(CONTINUE MAIN 1/4)

INSEL1

(CONTINUE MAIN 1/4)

LP/SLP-H  
LP-H  
A-MUTE  
D-REC-H  
D-PB-L  
A-PB/REC  
AE-H  
AE-H GND  
A-COM  
P-ON+10V

13-L2  
12-L2  
FE-H GND  
FE-H  
LP-H  
A-MUTE  
D-REC-H  
D-PB-L  
A-PB/REC  
AE-H  
AE-H GND  
A-COM  
P-ON+10V

AUDIO BLOCK  
NO. #40\*\*

1

G

H

I

J

K

## 2

1





MODE: SP/REC



